

SEARCH REQUEST FORM

Access DB# **81905**

Scientific and Technical Information Center

			_				
Requester's Full Name: BEN Art Unit: 1626 Phone No Mail Box and Bldg/Room Location:	SACK EY umber 30 <u>5-688</u> 9 (MI 3 E // Resu	Examiner # : <u>73489</u> Serial Number: <u>@9</u> Ilts Format Preferred (circle):	Date: 10/8/02 /834, 228 PAPER DISK E-MAIL				
If more than one search is submit	tted, please prioritiz	e searches in order of ne	eed. ME				

Title of Invention: Wesel	Confonds	for modul	lating				
Inventors (please provide full names):	Rosfman	ef al.					
Earliest Priority Filing Date: _ 4/	13/00						
For Sequence Searches Only Please include appropriate serial number.		parent, child, divisional, or issued p	atent numbers) along with the				
e'	R4 CN		RECEIVED DEC -9 ZET OSTIO				
Please se t	te Hach	d Species					
	Vidential Control of the Control of	PATENT SOLUMER DIF 1600	1600				
STAFF USE ONLY	Type of Search	Vendors and cost w	here applicable				
Searcher: Searcher Bhose # 3084499	NA Sequence (#)	Dialog					
Searcher Phone #:	Structure (#)	Questel/Orbit	/				
Date Searcher Picked Up:	Bibliographic	Dr.Link					
Date Completed: /2/13/02	Litigation	Lexis/Nexis	<u> </u>				
Seargher Prep & Review Time:	Fulltext	Sequence Systems					
Clerical Prep Time:	Patent Family	WWW/Internet					
Online Time:	Other	Other (specify)	معيري . معارفي				
PTO-1590 (8-01)	· · ·	العرب العربية العرب العربية					

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 20:24:26 ON 13 DEC 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 13 Dec 2002 VOL 137 ISS 25 FILE LAST UPDATED: 12 Dec 2002 (20021212/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=>

=> d stat que 115

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L3 1788 SEA FILE=REGISTRY SSS FUL L1

STR

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L14 30 SEA FILE=REGISTRY SUB=L3 SSS FUL L13 L15 34 SEA FILE=HCAPLUS ABB=ON PLU=ON L14

=> =>

=> d ibib abs hitrn 115 1-34

L15 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2002:120942 HCAPLUS

DOCUMENT NUMBER: 137:5970

TITLE: Highly Z-selective synthesis of disubstituted

.alpha.,.beta.-unsaturated cyanides and amides using

10-P-5 Wittig type reagents

AUTHOR(S): Kojima, Satoshi; Kawaguchi, Kazuhiro; Matsukawa,

Shiro; Uchida, Keiichiro; Akiba, Kin-Ya

CORPORATE SOURCE: Department of Chemistry, Graduate School of Science,

Hiroshima University, Higashi-Hiroshima, 739-8526,

Japan

SOURCE: Chemistry Letters (2002), (2), 170-171

CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:5970

Ι

GI:

Phosphoranes I [R = CN, CONMe2, CONH2] were examd. for Wittig type reactions. All three reacted to give the corresponding olefins. The reaction of I [R = CN] with aldehydes gave .alpha.,.beta.-unsatd. cyanides with high Z-selectivity in the case of aliph. aldehydes (Z:E = 94:6 to 99:1). On the other hand, the reactions of I [R = CONMe2, CONH2] with aldehydes yielded .alpha.,.beta.-unsatd. amides with high Z-selectivity for both arom. and aliph. aldehydes (Z:E = 99:1 to >99:<1).

IT 53649-66-4P 110729-75-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(highly Z-selective synthesis of disubstituted .alpha.,.beta.-unsatd.

cyanides and amides using 10-P-5 Wittig type reagents)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:19837 HCAPLUS

DOCUMENT NUMBER: 136:350405

TITLE: Novel 5-substituted-1H-tetrazole derivatives as potent

glucose and lipid lowering agents

AUTHOR(S): Momose, Yu.; Maekawa, Tsuyoshi; Odaka, Hiroyuki;

Ikeda, Hitoshi; Sohda, Takashi

CORPORATE SOURCE: Medicinal Chemistry Research Laboratories II, Takeda

Chemical Industries, Ltd., Chuo-ku. Osaka, 540-8645,

Japan

SOURCE: Chemical & Pharmaceutical Bulletin (2002), 50(1),

100-111

CODEN: CPBTAL; ISSN: 0009-2363
Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

PUBLISHER:

$$\begin{array}{c|c} & & & & \\ & & & \\ N & & & \\ N & & \\ N & & \\ N & & \\ N & \\ N & \\ N & \\ \end{array}$$

A series of 5-(4-alkoxyphenylalkyl)-1H-tetrazole derivs. contg. an AΒ oxazole-based group at the alkoxy moiety was prepd.; the antidiabetic and antihyperlipidemic effects of members of the series were evaluated in two genetically obese and diabetic animal models. The tetrazole compds. were prepd. using the cycloaddns. of azides with the corresponding nitriles. Many of the 5-(4-alkoxyphenylalkyl)-1H-tetrazoles showed potent glucose and lipid lowering activities in KKAy mice. Methylphenyloxazolylmethoxypy ridylpropyltetrazole I had potent glucose lowering activity (ED25 = 0.0839 mg.cntdot.kg-1.cntdot.d-1), being 72 times more active than pioglitazone hydrochloride (ED25 = 6.0 mg.cntdot.kg.cntdot.d-1); in addn., I also exhibited strong antihyperlipidemic activity (ED25 = 0.0277 mg.cntdot.kg-1.cntdot.d-1) in Wistar fatty rats. The antidiabetic activity of I is likely related to its potent agonistic activity for peroxisome proliferator-activated receptor .gamma. (PPAR.gamma.) (EC50 = 6.75 nM).

IT 166253-45-8P 421558-46-5P 421558-47-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of oxazolylalkoxyphenylalkyltetrazoles as antihyperglycemic and

antihyperlipidemic agents)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:2786 HCAPLUS

DOCUMENT NUMBER: 136:37609

TITLE: Tetrazole derivatives as hypoglycemic and

hypolipidemic agents

INVENTOR(S): Soda, Takasi; Ikeda, Hitosi; Momose, Yu PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Russ., No pp. given

CODEN: RUXXE7

DOCUMENT TYPE: Patent LANGUAGE: Russian

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
RU 2144533 C1 20000120 RU 1994-43788 19941209

OTHER SOURCE(S): MARPAT 136:37609

GI

AB Tetrazole derivs. such as I were prepd. in several steps. Thus, treatment of 0.7 g II with 0.411 g NaN3, 0.337 g NH4Cl in 15 mL DMF at 120.degree. for 24 h gave a 48% yield of I. The prepn. of II was also described. At a dose of 0.01 wt. % in their food, I showed hypoglycemic and hypolipidemic activities in mice of 45 and 28%, resp., compared to controls.

IT 166253-45-8P 166253-83-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(tetrazole derivs. as hypoglycemic and hypolipidemic agents)

IT 166253-64-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (tetrazole derivs. as hypoglycemic and hypolipidemic agents)

L15 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2001:175058 HCAPLUS

DOCUMENT NUMBER: 134:359390

TITLE: Wavelength-dependent regioselective

E(trans).fwdarw.Z(cis) photoisomerization in

anthryldienes

AUTHOR(S): Reddy, M. Janaki Ram; Rao, G. Venugopal; Bushan, K.

Mani; Reddy, Maruthi Janaki Ram; Gopal, V. Raj; Rao,

Ι

ΙI

V. Jayathirtha

CORPORATE SOURCE: Organic Chemistry Division II, Indian Institute of

Chemical Technology, Hyderabad, 500 007, India

SOURCE: Chemistry Letters (2001), (3), 186-187

CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE:

LANGUAGE:

CHEMICAL SOCI

AB Anthracenyldiene derivs. carrying electron withdrawing end group displayed wavelength dependent regioselective E(trans) .fwdarw. Z(cis) isomerization from the singlet excited state. Fluorescence studies indicated the highly polarized/charge-transfer nature of the singlet excited state.

IT 339047-96-0 339048-02-1

RL: PEP (Physical, engineering or chemical process); PROC (Process) (wavelength-dependent regioselective E.fwdarw.Z photoisomerization upon direct excitation and triplet sensitization of anthracenyldiene derivs.)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1998:574278 HCAPLUS

DOCUMENT NUMBER: 129:259958

TITLE: Pyrolytic electrocyclization of arylmethylidene

derivatives of glutacononitrile. Synthesis of

dihydroaromatic 1,3-dinitriles

AUTHOR(S): Banciu, Mircea D.; Brown, Roger F. C.; Coulston, Karen

J.; Eastwood, Frank W.; Macrae, Tamara

CORPORATE SOURCE: Chemistry Department, Monash University, Clayton,

3168, Australia

SOURCE: Australian Journal of Chemistry (1998), 51(8), 695-701

CODEN: AJCHAS; ISSN: 0004-9425

PUBLISHER: CSIRO Publishing

DOCUMENT TYPE: Journal LANGUAGE: English

AB Condensation of seven arom. aldehydes with glutacononitrile gave 4-(arylmethylidene)-2-pentenedinitriles. Flash vacuum pyrolysis of the dinitriles at 750.degree./0.02-0.03 mm gave annulated dihydroarom. 1,3-dicarbonitriles by electrocyclic ring closure. Fully aromatized products formed by secondary loss of H2 or HCN are also obtained.

IT 62486-11-7P 213532-37-7P 213532-38-8P 213532-41-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(dihydroarom. 1,3-dinitriles via pyrolytic electrocyclization of glutacononitrile arylmethylidene derivs.)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1998:376483 HCAPLUS

DOCUMENT NUMBER: 129:95677

TITLE: One-Pot Conversion of .alpha.,.beta.-Unsaturated

Alcohols into the Corresponding Carbon-Elongated Dienes with a Stable Phosphorus Ylide-BaMnO4 System. Synthesis of 6'-Methylene Derivatives of Neplanocin A as Potential Antiviral Nucleosides. New Neplanocin

Analogs. 11

AUTHOR(S): Shuto, Satoshi; Niizuma, Satoshi; Matsuda, Akira CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Hokkaido

University, Sapporo, 060-0812, Japan

SOURCE: Journal of Organic Chemistry (1998), 63(13), 4489-4493

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB We have developed an efficient one-pot method for elongating the carbon skeleton of .alpha.,.beta.-unsatd. primary alcs using a stable phosphorous ylide-BaMnO4 system.

IT 209622-32-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(one-pot conversion of .alpha.,.beta.-unsatd. alcs. into the corresponding carbon-elongated dienes)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1996:134772 HCAPLUS

DOCUMENT NUMBER: 124:288399

TITLE: Reaction of .alpha.-halo organoindium reagents with

carbonyl compounds and electron-deficient alkenes Araki, Shuki; Hirashita, Hirashita; Shimizu, Ken;

Ikeda, Takahiro; Butsugan, Yasuo

CORPORATE SOURCE: Department Applied Chemistry, Nagoya Institute

Technology, Nagoya, 466, Japan Tetrahedron (1996), 52(8), 2803-16 CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

AB A variety of .alpha.-halo organoindium reagents were prepd. in situ from the reaction of gemdihalo compds. with indium metal, and their reactions with carbonyl compds. and electron-deficient alkenes were examd. The reactions of simple 1,1-diiodoalkanes with indium metal gave no defined products but benzal iodide gave stilbene in moderate yield. .alpha.-Halo organoindium reagents derived from .alpha.,.alpha.-dibromo carbonyl compds. gave oxiranes and cyclopropanes upon the reactions with aldehydes and alkenes, resp. 3,3-Dichloropropenes reacted with aldehydes in the presence of indium metal to give the corresponding chlorohydrins and/or homoallyl alcs., depending on the structures of both the dichloropropanes and aldehydes employed.

IT 14164-31-9P

AUTHOR(S):

SOURCE:

RL: SPN (Synthetic preparation); PREP (Preparation) (addn. of organoindium reagents to carbonyl compds. and alkenes)

L15 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1995:733194 HCAPLUS

DOCUMENT NUMBER: 123:143900

TITLE: [[[(heterocyclyl)alkoxy]phenyl]alkyl]tetrazoles and

[[[(heterocyclyl)alkoxy]pyridinyl]alkyl]tetrazoles as

antidiabetics anticholesteremics

INVENTOR(S): Sohda, Takashi; Ikeda, Hitoshi; Momose, Yu PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 629624		19941221	EP 1994-304225	19940610
R: AT,	BE, CH, DE,	DK, ES, FR,	GB, GR, IE, IT, LI,	
JP 07053555	A2	19950228	JP 1994-121288	19940602
· US 5591862	A	19970107	US 1994-257056	19940608
CA 2125549	AA	19941212	CA 1994-2125549	19940609
AU 682218	B2	19970925	AU 1994-77684	19941108
AU 9477684	A1	19960516		
TW 393477	В	20000611	TW 1994-83110305	19941108
ZA 9408919	A	19951121	ZA 1994-8919	19941110
CN 1124246	A	19960612	CN 1994-119372	19941205
CN 1068326	В	20010711		
PRIORITY APPLN.	INFO.:		JP 1993-140906 A	19930611

OTHER SOURCE(S):

MARPAT 123:143900

GI

The [[[(heterocyclyl)alkoxy]phenyl]alkyl]tetrazoles and AB [[[(heterocyclyl)alkoxy]pyridinyl]alkyl]tetrazoles I (A = heterocyclic group; n = integer; X = methine, nitrogen; Y = alkanediyl) were claimed for the treatment of hypoglycemia (antidiabetics) and hypolipidemia (anticholesteremics). An example compd., 5-[2-[4-[2-(5-methyl-2-phenyl-4oxazolyl)ethoxy]phenyl]ethyl]-1H-tetrazole (II) was prepd.

166253-45-8P 166253-59-4P 166253-64-1P IT 166253-73-2P 166253-83-4P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

([[[(heterocyclyl)alkoxy]phenyl]alkyl]tetrazoles antidiabetics anticholesteremics)

L15 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2002 ACS 1992:571149 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 117:171149

TITLE: Reactions of salicylaldehyde with some conjugated

olefins

AUTHOR(S): Yamaguchi, Seiji; Saitoh, Takenao; Kamiumezawa,

Megumi; Enomoto, Hiroko; Kawase, Yoshiyuki Fac. Sci., Toyama Univ., Toyama, 930, Japan Journal of Heterocyclic Chemistry (1992), 29(4), 755-8

CORPORATE SOURCE: SOURCE:

CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: Journal LANGUAGE: English

GT

Some condensation reactions of salicylaldehyde with various conjugated AΒ olefins, Me2C:CHX (I, X = CO2Et, cyano, COMe), Me2C:CXCO2Et (II), and III, were studied. Condensations with I gave 2,2-dimethyl-2H-chromene derivs. IV (X = H, CO2Et, cyano, COMe) via "3-2 cyclization", while the condensations with II and III gave 2-methyl-2H-chromen-2-yl)acetic acid derivs. V [(R = Me, R1 = H; X = CO2Et, RR1 = (CH2)4] via "3-4" cyclization".

ΙT 143661-14-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and intramol. cyclization of) 143661-18-1P ΤT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) L15 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2002 ACS 1991:206702 HCAPLUS ACCESSION NUMBER: 114:206702 DOCUMENT NUMBER: Organotellurium ylide reactions. Part II. Synthesis TITLE: of 2,4-conjugated unsaturated ketones, esters and nitriles Zhong, Qi; Liu, Changqing; Shao, Jianguo AUTHOR(S): CORPORATE SOURCE: Dep. Chem., Yangzhou Norm. Coll., Yangzhou, 225002, Peop. Rep. China Youji Huaxue (1991), 11(1), 58-63 SOURCE: CODEN: YCHHDX; ISSN: 0253-2786 DOCUMENT TYPE: Journal LANGUAGE: Chinese CASREACT 114:206702 OTHER SOURCE(S): A convenient procedure for the synthesis of 2,4-conjugated unsatd. ketones, esters and nitriles by the condensation of telluronium salts Bu2Te+CH2RX- (R = Bz, substituted Bz; X = Br, Cl) with R1CH:CHCHO (R1 = Ph, substituted Ph) is reported. The yields are 85 .apprx. 96%. All products are the E,E-isomers as confirmed by their m.p., IR and 1H NMR spectra. Effect of solvents and bases on the condensation are studied. The reaction is likely to proceed with telluronium ylides as intermediates. 53649-66-4P 133505-28-9P 133505-29-0P IT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) L15 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2002 ACS 1990:531683 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 113:131683 A stereoselective synthesis of cis-alkenenitriles TITLE: through Reformatskii-Peterson reaction Palomo, Claudio; Aizpurua, Jesus M.; Aurrekoetxea, AUTHOR(S): Natalia CORPORATE SOURCE: Fac. Quim., Univ. Pais Vasco, San Sebastian, 20080, Spain Tetrahedron Letters (1990), 31(15), 2209-10 SOURCE: CODEN: TELEAY; ISSN: 0040-4039 DOCUMENT TYPE: Journal English LANGUAGE: OTHER SOURCE(S): CASREACT 113:131683 A new procedure for the prepn. of alkenenitriles from Me3SiCHClCN (I) and carbonyl compds. promoted by Zn is described. Thus, treatment of 4-RC6H4CHO (R = H, Me, MeO, Cl, cyano) with I and Zn gave 4-RC6H4CH:CHCN as mixts. of E and Z isomers. 62486-11-7P 64432-85-5P ΙT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) L15 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1990:422994 HCAPLUS DOCUMENT NUMBER: 113:22994 TITLE: Studies on the effect of opposite terminal groups in

Acta Chimica Sinica (English Edition) (1989), (6), SOURCE:

AUTHOR(S):

CORPORATE SOURCE:

Inst. Chem., Acad. Sin., Beijing, Peop. Rep. China

phenylpolyenic conjugative systems

Dai, Cuichen; Li, Guiying

527-37

CODEN: ACSIEW; ISSN: 0256-7660

DOCUMENT TYPE: Journal LANGUAGE: English

Seven homologous species p-A:B-C6H4(CH:CH)nX:Y (A:B = NO2, X:Y = CHO, COMe, CN, NO2; A:B = CN, X:Y = CHO, CN; A:B = H, X:Y = NO2) were synthesized. The effect of opposite terminal groups in phenylpolyenic conjugative systems has been studied by means of UV, XPS, 13C NMR, and quantum chem. calcn. The results show that: 1. There exists the effect of opposite terminal groups in phenylpolyenic and other arom. conjugative systems. 2. When A:B and X:Y are the same, the group (-X:Y) connected at polyenic chain is a terminal group, while the other is an opposite terminal group. When the two groups are different, the one with weaker conjugative power plays the role of the opposite terminal group. 3. The effect of opposite-terminal groups increases successively in the order of CN, COMe, CHO, NO2 and can be quant. described with substitute equiv. .DELTA.Ns. The .lambda.max of compd. contq. an opposite terminal group can be calcd. by the homologous equation $10-4 \sim v = a+b/(1/2)2/N'-Sa$, most of the calcd. values are in agreement with expt. results.

127826-36-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and spectra of)

127826-41-9 ΙT

> RL: PRP (Properties) (spectra of)

L15 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1989:632055 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

111:232055

TITLE: The application of elemento-organic compounds of the fifteenth and sixteenth groups in organic synthesis.

Part 61. Synthesis of .alpha.,.beta.-unsaturated nitriles by reaction of haloacetonitrile with carbonyl

compounds mediated by tributylstibine

Huang, Yaozeng; Shen, Yanchang; Chen, Chen AUTHOR(S):

Shanghai Inst. Org. Chem., Acad. Sin., Shanghai, CORPORATE SOURCE:

Switz.

Synthetic Communications (1989), 19(1-2), 83-90 SOURCE:

CODEN: SYNCAV; ISSN: 0039-7911

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 111:232055

Condensation reaction of RCHO [R = n-pentyl, n-octyl, (E)-Me(CH2)6CH:CH, (E)-PhCH:CH, 2-furyl, 2-thienyl, Ph, p-ClC6H4] with ClCH2CN in the

presence of Bu3Sb gave 74-97% RCH: CHCN as E- and Z-mixts. Cyclopentanone

and cyclohexanone also reacted to give the corresponding (cyanomethylene) cycloalkanes.

53649-66-4P 110729-75-4P ΤT

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

L15 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1989:480290 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 111:80290

Palladium-catalyzed vinylation of activated alkenes TITLE:

with .alpha.,.beta.-unsaturated acid chlorides

AUTHOR(S): Kasahara, Akira; Izumi, Taeko; Kudou, Naoto; Azami,

Hiroshi; Yamamoto, Shinzi

Fac. Eng., Yamagata Univ., Yonezawa, 992, Japan CORPORATE SOURCE:

SOURCE: Yamagata Daigaku Kiyo, Kogaku (1988), 20(2), 125-39

CODEN: YDKKAR; ISSN: 0513-465X

DOCUMENT TYPE: Journal LANGUAGE: English

Unsatd. acid chlorides [cinnamoyl, fumaroyl, 3-(ethoxycarbonyl)acryloyl, AB 5-phenyl-2,4-pentadienoyl, and 2,4-hexadienoyl chlorides) reacted with styrene, Et acrylate, acrylonitrile, Me vinyl ketone, methacrolein, Me methacrylate, and Me crotonate in the presence of Bu3N, trioctylamine, iso-PrNEtH, PhCH2NMe2, or N-ethylmorpholine (best) and a Pd compd. [bis(dibenzylideneacetonato)palladium preferred] to give conjugated dienes or trienes. The reaction involved a highly efficient decarbonylation of the acid chlorides.

53649-66-4P 110729-75-4P TT

> RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of, using cinnamoyl chloride as vinylation agent in presence of palladium catalysts)

L15 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1988:167071 HCAPLUS

DOCUMENT NUMBER: 108:167071

TITLE: Sodium telluride-mediated carbon-carbon bond-forming

reactions

AUTHOR(S): Suzuki, Hitomi; Manabe, Hajime; Inouye, Masahiko CORPORATE SOURCE: Fac. Sci., Ehime Univ., Matsuyama, 790, Japan SOURCE:

Nippon Kagaku Kaishi (1987), (7), 1485-9

CODEN: NKAKB8; ISSN: 0369-4577

DOCUMENT TYPE: Journal LANGUAGE: Japanese

OTHER SOURCE(S): CASREACT 108:167071

Na2Te, prepd. by heating Te and NaH in a 1:2 molar ratio in dry Me2NCHO, readily debrominates BrCH2CO2R (R = Me, Et) at low temps. to generate the enolate anions, which undergo a Reformatskii-type reaction with various nonenolizable aldehydes (e.g., PhCHO) to give the corresponding .alpha.,.beta.-unsatd. esters (e.g., PhCH:CHCO2R) in good to moderate yields. BrCH2CN and ClCH2CN react similarly to afford .alpha.,.beta.-unsatd. nitriles in moderate yields. Although the results are unsatisfactory with BrCH2CON(CHMe2)2, CC13CONEt2 gives the N, N-diethyl-.beta.-aryl-.alpha.-oxopropionamide with piperonal. similar treatment, 4-NCC6H4CH2Br condenses with piperonal to give 4'-cyano-3,4-(methylenedioxy) stilbene among other products.

TT 62486-11-7P 64432-85-5P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

L15 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1987:575620 HCAPLUS

DOCUMENT NUMBER: 107:175620

TITLE: A facile preparation of 5-phenylpenta-2,4-

dienenitriles

Shibata, Katsuyoshi; Kondo, Hidehito; Urano, AUTHOR(S):

Katsuyoshi; Matsui, Masaki

CORPORATE SOURCE: Fac. Eng., Gifu Univ., Gifu, 501-11, Japan SOURCE:

Chemistry Express (1987), 2(2), 117-20

CODEN: CHEXEU; ISSN: 0911-9566

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 107:175620

Cinnamaldehydes in the presence of superoxide ion in acetonitrile under ultrasound irradn. afforded 5-phenylpenta-2,4-dienenitriles in good yields. Distribution of the (2E) and (2Z) isomers was explained by the conformation of the precursor.

ΙT 53649-66-4P 110729-75-4P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

L15 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1987:477283 HCAPLUS

DOCUMENT NUMBER: 107:77283

TITLE: Stereospecific synthesis of 2,4-dienoic acid

derivatives from vinylmercuric chlorides and acrylic

acid derivatives by palladium(II) salt

AUTHOR(S): Kim, Jin Il; Lee, Jong Tae

CORPORATE SOURCE: Dep. Ind. Chem., Hanyang Univ., Seoul, 133, S. Korea SOURCE: Bulletin of the Korean Chemical Society (1986), 7(6),

472-7

CODEN: BKCSDE; ISSN: 0253-2964

DOCUMENT TYPE: Journal LANGUAGE: English

AB The alkenylation of R1CH:CR2R3 (R1 = H, Me; R2 = H, Me; R3 = CO2H, cyano, Ph) by R4CR5:CHHgCl (R4 = alkyl, CO2H, Ph; R5 = H, Me), LiPdCl3, and CuCl2 gave R4CR5:CHCR1:CR2R3.

IT 53649-66-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)

L15 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1986:478376 HCAPLUS

DOCUMENT NUMBER: 105:78376

TITLE: Structural effect of .pi.-electron excessive

conjugative groups

AUTHOR(S): Tai, Tsuichen; Hu, Weixiao; Chiang, Mingchien CORPORATE SOURCE: Inst. Chem., Acad. Sin., Beijing, Peop. Rep. China Fenzi Kexue Yu Huaxue Yanjiu (1985), 5(2), 141-51

CODEN: FKYYDG

DOCUMENT TYPE: Journal LANGUAGE: Chinese

AB The structural effects of .pi.-electron excessive groups R (R = NH2, NMe2, NHAc, SMe, SEt, SH, OMe, OEt, OBu, O2CMe) on electronic spectra of 18 conjugated homologous polyenic, arom. polyenic, and polyphenyl systems (200 compds.) were detd.

IT 14164-31-9

RL: PRP (Properties)
 (electronic spectra of)

L15 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1986:206308 HCAPLUS

DOCUMENT NUMBER: 104:206308

TITLE: A general allylation procedure using

AUTHOR(S): trimethylallylsilane and fluoride catalysis
Majetich, George; Casares, Ada; Chapman, David;

Behnke, Mark

CORPORATE SOURCE: Sch. Chem. Sci., Univ. Georgia, Athens, GA, 30602, USA SOURCE: Journal of Organic Chemistry (1986), 51(10), 1745-53

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 104:206308

The relative effectiveness for conjugate addn. of lithium diallylcuprate and Lewis acid or fluoride ion catalyzed addn. of trimethylallylsilane was compared by using a variety of Michael acceptors of differing electrophilicity and steric bulk. Conjugate allylation using trimethylallylsilane and fluoride catalysis is far more general than traditional procedures and clearly superior for allylation of .alpha.,.beta.-unsatd. esters and nitriles. This method also afforded exclusively the 1,4-adduct in allylation reactions with polyene esters and nitriles, in contrast to cuprates, which preferred 1,6-conjugate addn. The Hosomi Sakurai allylation procedure (Lewis acid catalyzed addn. of trimethylallylsilane) was effective only for conjugated enones or doubly activated Michael acceptors. As expected, allylations using lithium diallylcuprate were severely substrate dependent.

```
IT 53649-66-4
```

RL: RCT (Reactant); RACT (Reactant or reagent)

(allylation of, with allyltrimethylsilane in presence of fluoride on)

L15 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1984:5756 HCAPLUS

DOCUMENT NUMBER: 100:5756

TITLE: Chemoselectivity in the conjugate addition of

allylsilane to Michael acceptors

AUTHOR(S): Majetich, George; Casares, Ada M.; Chapman, D.;

Behnke, M.

CORPORATE SOURCE: Dep. Chem., Univ. Georgia, Athens, GA, 30602, USA

SOURCE: Tetrahedron Letters (1983), 24(18), 1909-12

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal LANGUAGE: English

AB The allylic carbanion species generated by treatment of CH2:CHCH2SiMe3 (I) with F- underwent highly chemoselective conjugated addn. to a series of Michael acceptors for which alternative known allylation procedures were less general. E.g., allylation of PhCH:CHCO2Me (II) with I/F- gave 90% PhCH(CH2CO2Me)CH2CH:CH2 (III), whereas allylation of II with

Li(CH2CH:CH2)2Cu gave only 61% III and with I-TiCl4, allylation failed to

occur.

IT 14164-31-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(conjugate addn. reaction of, with allylsilane, fluoride ion-catalyzed, chemoselectivity in)

L15 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1983:88685 HCAPLUS

DOCUMENT NUMBER: 98:88685

TITLE: Structural effect in branched conjugated systems -

bifurcation-type of branched polyenic nitriles,

carboxylic acids and esters

AUTHOR(S): Dai, Cuichen; Yu, Zhenjie; Jiang, Mingqian

CORPORATE SOURCE: Inst. Chem., Acad. Sin., Beijing, Peop. Rep. China SOURCE: Scientia Sinica, Series B: Chemical, Biological, Agricultural, Medical & Earth Sciences (English

Edition) (1982), 25(10), 1021-34 CODEN: SSBSEF; ISSN: 0253-5823

DOCUMENT TYPE: Journal LANGUAGE: English

The UV spectra and NMR chem. shifts of the homologous series Me(CH:CH)nCH:C(CN)CO2Et (n = 0, 1, 3, 5), Ph(CH:CH)nCH:C(CN)R (n = 0, 1, 2, 3, 5; R = CN, CO2Et), and Ph(CH:CH)nCH:CR2 (R = CO2H, n = 1, 3, 5; R = CO2Et, n = 0, 1, 3, 5) conformed to the rule of homologous linearity. In all of these branched compds., a red shift in the UV spectra was obsd. upon introduction of electron-attracting branching groups. Mass spectra indicate that CN groups are more strongly conjugated with the polyenic chain than are CO2Et groups. Substituent effects of branching groups were calcd. by the method of similar triangles.

IT 14164-31-9

RL: PRP (Properties)
 (UV spectrum of)

L15 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1982:472098 HCAPLUS

DOCUMENT NUMBER: 97:72098

TITLE: Benzene or naphthalene alkenyl carboxylic acid

derivatives

INVENTOR(S): Blaser, Hans Ulrich; Reinehr, Dieter; Spencer, Alwyn

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz. SOURCE: Eur. Pat. Appl., 50 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 40177 EP 40177	A1 B1	19811118 19830720	EP 1981-810178	19810507
R: BE, CH,	DE, FR			
US 4335054	Α	19820615	US 1981-262000	19810508
CA 1178295	A1	19841120	CA 1981-377368	19810512
JP 57007436	A2	19820114	JP 1981-70855	19810513
JP 01054337	В4	19891117		
PRIORITY APPLN. INFO	.:		СН 1980-3732	19800513
GI				

$$MeO$$
 CH_2CO_2Me
 $CH=C$
 CH_2CO_2Me
 $CH=C$
 CO_2Me
 $CH=CHCN$
 $CH=CHCN$
 $CH=CHCN$

AB Z[(CH:CH)mCR1:CRR2]n [m = 0 or 1; n = 1 and Z = aryl or naphthyl or n = 2 and Z = arylene or naphthylene; R = H, CH2CO2R3, CH2CH2CN; R1 = H or (if m = 0 and n = 1) cyano, C1-4 alkyl, CO2R3 (R or R1 must be H); R2 = cyano, CO2R3, CONR32, COR3; R3 = C1-12 alkyl or Ph] were prepd. by decarbonylation-addn. reaction of olefinic acid derivs. with aroyl halides in the presence of a Pd compd. and a base, esp. an amine; .apprx.80 compds. were prepd. Thus, 3.51 g BzCl, 3.125 g CH2:CHCO2Et, 5.79 g Bu3N, 0.0561 g Pd(OAc)2, and 50 mL PhMe were stirred 4 h at 100.degree. until CO evolution was complete to give 66% Et cinnamate. Also prepd. were, e.g., I-III.

IT 81069-73-0P 81069-74-1P

L15 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1982:180289 HCAPLUS

DOCUMENT NUMBER: 96:180289

TITLE: Structural effect in cross conjugative systems. IV.
Properties of .alpha.-carboxyphenylpolyenic cyanides

and the quantum chemical calculation of orbital energy

and bond order

AUTHOR(S): Liang, Desheng; Lai, Chugen; Chiang, Mingchien

CORPORATE SOURCE: Inst. Chem., Acad. Sin., Shanghai, Peop. Rep. China

SOURCE: Fenzi Kexue Xuebao (1981-1982) (1981), 1(1), 17-30

CODEN: FKXUDX; ISSN: 0253-3677

DOCUMENT TYPE: Journal LANGUAGE: Chinese

AΒ all-trans-Ph(CH:CH)nCH:C(CN)CO2H (I) are prepd. and their UV and mass spectra are obsd. The MO, .pi.-energy differences, and .pi.-bond orders of I are calcd. by CNDO/2. The properties of I are correctly calcd. by using the extended form of the homologous equation for the corresponding linear conjugated system (.omega.-phenylpolyenic nitriles) with an .alpha.-CO2H group substituent. Cross-conjugated systems may be generally treated by allowing 1 of the 2 branches to become the terminal group of a linear conjugated system while the other branch becomes the substituent.

IT 53649-66-4P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and bond order and UV of, MO calcn. of)

L15 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1979:474188 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 91:74188

A simple preparation of trimethylsilylacetonitrile and TITLE:

a novel ring opening of epoxides with

trimethylsilylacetonitrile anion

AUTHOR(S): Matsuda, Isamu; Murata, Shizuaki; Ishii, Yoshio CORPORATE SOURCE: Dep. Synth. Chem., Nagoya Univ., Nagoya, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1972-1999)

(1979), (1), 26-30 CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal LANGUAGE: English

AB Me3SiCH2CN (I) was prepd. (81%) from BrCH2CN by treatment in C6H6-THF with Me3SiCl and Zn (reflux, 16 h). I- with 1 equiv RCOR1 [R = Ph, PhCH:CH, R1 = H; RR1 = (CH2)5] (THF, -78.degree.) gave 73-95% RCR1:CHCN. I- with epoxides gave .gamma.-trimethylsiloxy nitriles which were readily

transformed into .gamma.-lactones with HCl in aq. MeOH.

IT 14164-31-9P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, from carbonyl compd. and (trimethylsilyl)acetonitrile anion)

L15 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2002 ACS 1977:600756 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 87:200756

TITLE: Selective alkylation and deselenenylation of

cyanomethyl phenyl selenide in aqueous medium, and an

application to 1-cyanocyclopropene synthesis

AUTHOR(S): Masuyama, Yoshiro; Ueno, Yoshio; Okawara, Makoto Res. Lab. Resour. Util., Tokyo Inst. Technol., Tokyo,

CORPORATE SOURCE:

Japan

Chemistry Letters (1977), (7), 835-8 SOURCE:

CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE: Journal LANGUAGE: English

GT

```
AΒ
     PhSeCH2CN (I) was alkylated with RCH2X [R = Me, Me(CH2)7, PhCH2,
     PhCH: CHCH2; X = halo] to give PhSeCH(CN)CH2R, which was further alkylated
     with R1X (R1 = H, PhCH2; X = halo) to give PhSeCR1(CN)CH2R. This was
     deselenated with N-halosuccinimides to give RCH: CR1CN and PhSeOH. For
     example, I and BrCH2CH2Br gave II, which was oxidized with NaIO4 to give
     III. III was heated in xylene 6 h at 140.degree. to form
     1-cyano-1-cyclopropene, which was trapped by anthracene to give IV.
IT
     62486-11-7P 64432-85-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
L15 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2002 ACS
                         1977:139581 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                          86:139581
TITLE:
                         A stereoselective synthesis of trans-2-alkenenitriles
AUTHOR(S):
                         Loupy, Andre; Sogadji, Koffi; Seyden-Penne, Jacqueline
CORPORATE SOURCE:
                         Groupe Lab., CNRS, Thiais, Fr.
SOURCE:
                         Synthesis (1977), (2), 126-7
                         CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE:
                          Journal
LANGUAGE:
                         English
AΒ
     Reaction of Ph2P(O)CH2CN with aldehydes or MeCOPh in THF contq. Me3COK at
     room temp. gave >90% trans-alkenenitrile with .gtoreq.90% selectivity,
     e.g., E-RC6H4CH:CHCN (R = H, p-MeO, p-Cl, m-O2N), PhCH:CHCH:CHCN, and
     E-PhCMe: CHCN. The selectivity was .apprx.75% from isobut anal.
IT
     62486-11-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
L15 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER:
                         1975:156187 HCAPLUS
DOCUMENT NUMBER:
                         82:156187
TITLE:
                         Preparation of 3-substituted 5-amino-1,2,4-oxadiazoles
                         from amidoximes with cyanogen bromide
AUTHOR(S):
                         Dost, Johannes; Leisner, Rudi
CORPORATE SOURCE:
                         Sekt. Chem./Biol., Paedagog. Hochsch. "Wolfgang
                         Ratke", Koethen, E. Ger.
SOURCE:
                         Z. Chem. (1975), 15(2), 57
                         CODEN: ZECEAL
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         German
GI
     For diagram(s), see printed CA Issue.
AB
     Oxadiazoles I (R = Me, Ph, PhCH2, PhCH:CH, Ph(CH:CH)2, Me2NC6H4CH:CH,
     HO2CCH2, PhCH:CHCH:C(CO2R1), MeOC6H4CH:C(CO2R1), Me2NC6H4CH:C(CO2R1), R1 = CO2R1
     H, R) were prepd. in 60-5% yield by treating RC(:NOH)NH2 with BrCN.
     RC(:NOH)NH2 were prepd. from RCN and NH2OH.
IT
     14164-31-9
     RL: RCT (Reactant)
        (reaction of, with hydroxylamine)
L15 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER:
                         1974:491144 HCAPLUS
DOCUMENT NUMBER:
                         81:91144
TITLE:
                         Synthesis of conjugated dienes using cobalt acetylene
                         complexes
AUTHOR(S):
                         Khand, Ihsan U.; Pauson, Peter L.
CORPORATE SOURCE:
                         Dep. Pure Appl. Chem., Univ. Strathclyde, Glasgow,
                         Scot.
SOURCE:
                         J. Chem. Soc., Chem. Commun. (1974), (10), 379
                         CODEN: JCCCAT
DOCUMENT TYPE:
                         Journal
```

LANGUAGE: English

AB Et crotonate (I), crotonaldehyde, and acrylonitrile reacted with (phenyl-acetylene)hexacarbonyldicobalt to give conjugated dienes. E.g., I gave 45% PhCH:CHCMe:CHCO2Et.

IT 53649-66-4P

L15 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1974:29709 HCAPLUS

DOCUMENT NUMBER: 80:29709

TITLE: Synergistic corrosion inhibitors for steel INVENTOR(S): Costain, Winston; Terry, Bernard W. H.

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

SOURCE: Ger. Offen., 11 pp. Addn. to Ger. Offen. 2,147,847

(CA 77;82988e). CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2311171	A1	19730913	DE 1973-2311171	19730307
GB 1417555	Α	19751210	GB 1972-10724	19730305
US 3854959	A	19741217	US 1973-338526	19730306
NL 7303191	A	19730911	NL 1973-3191	19730307
FR 2175149	A2	19731019	FR 1973-8176	19730307
BE 796487	A4	19730910	BE 1973-128554	19730308
JP 48102043	A2	19731221	JP 1973-27552	19730308
PRIORITY APPLN. INFO.:	:		GB 1972-10724	19720308
			BE 1971-772782 .	19710917

AB Compns. contg. PhCH:CHR (I) [R = CN (II) or CH:CHCN] and I [R = CH:NOH or CHO (III)] or morpholine had a synergistically inhibiting effect on steel corrosion. Thus, soft steel samples were immersed 24 hr in 14% HCl contg. 0.25% II and 0.025% III at 85.degree. The wt. loss was 0.84% vs. 67.0 and 76.0% for solns. contg. 0.5% II or 0.5% III alone, resp.

IT 14164-31-9

RL: USES (Uses)

(corrosion inhibitors contq., for steel)

L15 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1972:513982 HCAPLUS

DOCUMENT NUMBER: 77:113982

TITLE: Synthesis and some properties of vinylogs of

p-bis(alkoxycarbonyl)-, p-dicyano-, and

p-diaroylbenzenes

AUTHOR(S): Grinev, G. V.; Dombrovskii, V. A.; Yanovskaya, L. A.

CORPORATE SOURCE: Inst. Org. Khim. im. Zelinskogo, Moscow, USSR

SOURCE: Izv. Akad. Nauk SSSR, Ser. Khim. (1972), (3), 635-7

CODEN: IASKA6

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB (EtO)2P(O)CH2R (I, R = CO2R1, CN, Bz, COC6H4Me-p, R1 = Me, Et, Pr) (II, R = CO2Et) in DMF was treated with EtONa, EtOH and terephthalaldehyde to give p-C6H4[(CH:CH)nR]2 (III, n = 1, R = CO2Et). Similarly, II and p-bis(2-formylvinyl)benzene gave III (n = 2, R = CO2Et). Similarly were prepd. III (n = 1, 2, R = Bz, CN, CO2Me, CO2Pr, COC6H4Me-p). Their ir and uv spectra were given. The diketones had lower extinction coeffs. than did the analogous esters due to nonplanar mol. forms.

IT 38862-55-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

L15 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1972:482988 HCAPLUS

DOCUMENT NUMBER: 77:82988

TITLE: Inhibition of steel corrosion by using acidic organic

nitro compounds

INVENTOR(S): Costain, Winston; Terry, Bernard W. H.

Imperial Chemical Industries Ltd. PATENT ASSIGNEE(S): SOURCE:

Ger. Offen., 19 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO. DATE	
DE 2147847	A1	19720330	DE 1971-2147847 1971092	- - 24
GB 1365291	A	19740829	GB 1971-7807 1971032	25
ZA 7106110	А	19720531	ZA 1971-6110 1971091	13
CA 963647	A1	19750304	CA 1971-122707 1971091	13
NO 131896	В	19750512	NO 1971-3399 1971091	13
BE 772782	A1	19720317	BE 1971-108315 1971091	L7
IL 37748	A1	19741231	IL 1971-37748 1971091	17
IT 939022	A	19730210	IT 1971-28952 1971092	22
AU 7133836	A1	19730329	AU 1971-33836 1971092	23
NL 7113205	A	19720328	NL 1971-13205 1971092	24
FR 2107997	A5	19720512	FR 1971-34544 1971092	24
FR 2107997	B1	19750718		
SE 383002	В	19760223	SE 1971-12125 1971092	24
ES 395432	A1	19740916	ES 1971-395432 1971092	25
US 3876371	A	19750408	US 1974-436351 1974012	24
ORITY APPLN.	INFO.:		GB 1970-45814 A 1970092	25
			GB 1971-7807 A 1971032	25
			US 1971-180231 A1 1971091	13

AB Acidic org. nitro compds. are proposed as steel corrosion inhibitors. Thus, a 25-35 g steel test piece provided with a 9.5 mm diam. hole is placed into a 20.3 .times. 2.5 cm glass cylinder which is provided with a water-cooled condenser for refluxing of test fluid: 30 g adipic acid + 1 g solid or liq. inhibitor compd., and 1 ml distd. H2O. The mixt. is placed in a Woods-metal bath and heated 50 hr at 240 .+-. 10.degree.. The test piece was weighed before as well as after being treated in the corrosive fluid. Some test pieces were pretreated by using 2 wt.%/vol. of an inhibitor compd. dissolved in an appropriate solvent at its b.p. and cooled during 24 hr. Metal-free phthalocyanine in quinoline soln. showed 49 ppm corrosion wt. loss compared to 10,165 ppm wt. loss in a noninhibited corrosive soln. Some oxime and dioxime contg. compds. gave similar results. Among numerous examples cinnamonitrile, crotononitrile, cinnamaldoxime, and acetophenone oxime act well as inhibitors in acidic media with or without pretreatment of the steel surface.

14164-31-9 ΙT

PRI

RL: PRP (Properties)

(in corrosion prevention, of stainless steel by hydrochloric acid)

L15 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1971:462772 HCAPLUS

DOCUMENT NUMBER: 75:62772

TITLE: Reactions of aryl Grignard reagents with pyridine

1-oxide. Structure of the addition products

AUTHOR(S): Kellogg, Richard M.; Van Bergen, T. J.

CORPORATE SOURCE: Dep. Org. Chem., Dep. Org. Chem., Univ. Zernikelaan,

Groningen, Neth.

Sackey 09 834728 J. Org. Chem. (1971), 36(12), 1705-8SOURCE: CODEN: JOCEAH DOCUMENT TYPE: Journal LANGUAGE: English For diagram(s), see printed CA Issue. GΙ 5-Aryl-cis-2, trans-4-pentadienal syn-oximes (I) are prepd. by the addn. of pyridine 1-oxide to Grignards ArMgBr or ArMgI, where Ar is Ph, a substituted phenyl group, or 2-thienyl. Mixts. of the I and Ac2O are refluxed to give 2-arylpyridines (II). The I are treated with p-MeC6H4SO2Cl to give nitriles ArCH: CHCH: CHCN. 14164-31-9P 28541-53-9P 28541-54-0P IT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2002 ACS 1969:57371 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 70:57371 Cinnamylideneacetonitrile TITLE: INVENTOR(S): Kato, Tetsuzo; Yamanaka, Hiroshi PATENT ASSIGNEE(S): Kowa Co., Ltd. SOURCE: Jpn. Tokkyo Koho, 3 pp. CODEN: JAXXAD DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: PATENT INFORMATION: KIND DATE PATENT NO. APPLICATION NO. DATE JP 43024903 B4 19681028 JP 19660919 19660919 Manuf. of the title compd. (I) by reaction of 1-hydroxy-2-phenyl-1,2dihydropyridine (II) with benzoyl halide in the presence of a dehydrohalogenating agent in a substantially anhyd. solvent is described. In an example, 0.91 g. BzCl is added to a soln. of 0.86 g. II in 4 ml. pyridine, the mixt. warmed at 40-50.degree. 3 hrs., ice flakes added, and the mixt. extd. with Et2O to give 0.73 g. I, b. 106-7.degree.. IT 14164-31-9P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) L15 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1968:21804 HCAPLUS DOCUMENT NUMBER: 68:21804 TITLE: Ring-opening reaction of 1-hydroxy-2-phenyl-1,2dihydropyridine and related compounds Kato, Tetsuzo; Yamanaka, Hiroshi; Adachi, Takeshi; AUTHOR(S): Hiranuma, Hidetoshi CORPORATE SOURCE: Sch. Med., Tohoku Univ., Sendai, Japan J. Org. Chem. (1967), 32(12), 3788-90 SOURCE: CODEN: JOCEAH DOCUMENT TYPE: Journal LANGUAGE: English For diagram(s), see printed CA Issue. GI Treatment of 1-hydroxy-2-phenyl-1,2-dihydropyridine (I, R = H) with an AB equimolar amt. of BzCl in dry pyridine affords cinnamylideneacetonitrile quant. When the reaction is carried out under ice cooling, 1-benzoyloxy-2-phenyl-1,2-dihydropyridine (I, R = Bz) is obtained which, on standing at room temp., transforms into the isomer cinnamylidene-

acetaldehyde oxime benzoate. 6 references.

IT 14164-31-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

```
=>
=>
=> fil caold
FILE 'CAOLD' ENTERED AT 20:24:58 ON 13 DEC 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)
FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)
 This file contains CAS Registry Numbers for easy and accurate
  substance identification. Title keywords, authors, patent
 assignees, and patent information, e.g., patent numbers, are
 now searchable from 1907-1966. TIFF images of CA abstracts
 printed between 1907-1966 are available in the PAGE
 display formats.
 This file supports REG1stRY for direct browsing and searching of
 all substance data from the REGISTRY file. Enter HELP FIRST for
 more information.
=>
=>
=> s 114
            2 L14
L16
=>
=>
=> d all 116 1-2
    ANSWER 1 OF 2 CAOLD COPYRIGHT 2002 ACS
L16
ΑN
     CA54:15320c CAOLD
TΙ
     reaction of phosphine ylides with carbonyl compds.
PA
     Badische Anilin- & Soda-Fabrik Akt.-Ges.
DT
     Patent
     PATENT NO.
                  KIND
                  -----
     GB 813539
PΙ
     DE 971986
     US 3078256
                               1963
                           1515-78-2
                                       1552-95-0 1560-54-9
ΙT
     821-00-1
                1099-45-2
                                                                1884-48-6
               2396-84-1
                            3029-41-2
                                       3049-35-2
                                                    3290-53-7
                                                                4336-70-3
     1884-57-7
     14164-31-9 15935-94-1 16640-68-9 16721-45-2 17577-28-5
     18480-24-5 19834-52-7 25361-54-0 35684-10-7 38821-11-3 56013-01-5
     58626-63-4 87424-79-1 92251-23-5 101548-30-5 102462-56-6 102892-18-2
     103169-93-3 103272-14-6 106423-29-4 111383-73-4 119570-75-1 121499-56-7
L16 ANSWER 2 OF 2 CAOLD COPYRIGHT 2002 ACS
     CA51:6337d CAOLD
AN
TΙ
     alteration of the ultraviolet absorption spectra of intramol. polarized
     conjugated systems by proton exchange with alcs. as solvents at normal and
     low temp.
     Lauerer, Dorothea; Coenen, M.; Pestemer, M.; Scheibe, G.
ΑU
     120-47-8
               1620-98-0 2286-29-5
                                       3293-92-3 3943-97-3
                                                                6935-44-0
IT
     10537-47-0 17315-86-5 22014-02-4 24293-93-4 32444-63-6 55367-73-2
```

100381-42-8 101111-94-8 102552-66-9

=> =>

=> fil reg
FILE 'REGISTRY' ENTERED AT 20:25:11 ON 13 DEC 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 12 DEC 2002 HIGHEST RN 476148-76-2 DICTIONARY FILE UPDATES: 12 DEC 2002 HIGHEST RN 476148-76-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> =>

=> d ide can 114 1-30

L14 ANSWER 1 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 421558-47-6 REGISTRY

CN 2,4-Pentadienenitrile, 5-[2-[(5-methyl-2-phenyl-4-oxazolyl)methoxy]phenyl]-, (2E,4E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H18 N2 O2

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1962 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:350405

ANSWER 2 OF 30 REGISTRY COPYRIGHT 2002 ACS 421558-46-5 REGISTRY L14

RN

CN 2,4-Pentadienenitrile, 5-[3-methoxy-4-[(5-methyl-2-phenyl-4oxazolyl)methoxy]phenyl]-, (2E,4E)- (9CI) (CA INDEX NAME)

STEREOSEARCH FS

MF C23 H20 N2 O3

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE) 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:350405

L14ANSWER 3 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 339048-02-1 REGISTRY

CN 2,4-Pentadienenitrile, 5-(9-anthracenyl)-, (2E,4Z)- (9CI) (CA INDEX NAME)

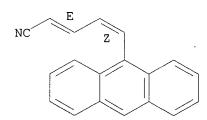
FS STEREOSEARCH

MF C19 H13 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE) 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 134:359390

L14 ANSWER 4 OF 30 REGISTRY COPYRIGHT 2002 ACS RN 339047-96-0 REGISTRY

CN 2,4-Pentadienenitrile, 5-(9-anthracenyl)-, (2E,4E)- (9CI) (CA INDEX NAME)

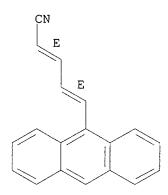
FS STEREOSEARCH

MF C19 H13 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 134:359390

L14 ANSWER 5 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 213532-41-3 REGISTRY

CN 2,4-Pentadienenitrile, 5-(4-methoxyphenyl)-, (2E)- (9CI) (CA INDEX NAME)

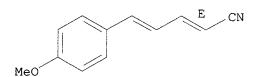
FS STEREOSEARCH

MF C12 H11 N O

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as described by E or Z.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:259958

L14 ANSWER 6 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 213532-38-8 REGISTRY

CN 2,4-Pentadienenitrile, 5-(2-naphthalenyl)-, (2E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C15 H11 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as described by E or Z.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:259958

L14 ANSWER 7 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 213532-37-7 REGISTRY

CN 2,4-Pentadienenitrile, 5-(1-naphthalenyl)-, (2E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C15 H11 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as described by E or Z.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:259958

L14 ANSWER 8 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 209622-32-2 REGISTRY

CN 2,4-Pentadienenitrile, 5-phenyl-, (4E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C11 H9 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as described by E or Z.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE) 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:95677

ANSWER 9 OF 30 REGISTRY COPYRIGHT 2002 ACS 166253-83-4 REGISTRY L14

RN

2,4-Pentadienenitrile, 5-[2-[(5-methyl-4-phenyl-2-oxazolyl)methoxy]phenyl]-CN , (E,E) - (9CI) (CA INDEX NAME)

FS STEREOSEARCH

C22 H18 N2 O2 MF

SR CA

STN Files: CA, CAPLUS, USPATFULL LC

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:37609

123:143900 REFERENCE 2:

ANSWER 10 OF 30 REGISTRY COPYRIGHT 2002 ACS L14

166253-73-2 REGISTRY RN

2,4-Pentadienenitrile, 5-[4-[[5-methyl-2-(2-naphthalenyl)-4-CN oxazolyl]methoxy]phenyl]-, (E,E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

C26 H20 N2 O2 MF

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 123:143900

ANSWER 11 OF 30 REGISTRY COPYRIGHT 2002 ACS 166253-64-1 REGISTRY L14

RN

2,4-Pentadienenitrile, 5-[4-[(5-methyl-4-phenyl-2-CN

thiazolyl)methoxy]phenyl]-, (E,E)- (9CI) (CA INDEX NAME)

STEREOSEARCH FS

C22 H18 N2 O S MF

SR CA

CA, CAPLUS, USPATFULL LC STN Files:

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:37609

REFERENCE 2: 123:143900

ANSWER 12 OF 30 REGISTRY COPYRIGHT 2002 ACS L14

RN 166253-59-4 REGISTRY

2,4-Pentadienenitrile, 5-[3-[(5-methyl-2-phenyl-4-oxazolyl)methoxy]phenyl]-CN (E,E)-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

C22 H18 N2 O2 MF

SR CA

STN Files: CA, CAPLUS, USPATFULL LC

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 123:143900

L14 ANSWER 13 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 166253-45-8 REGISTRY

CN 2,4-Pentadienenitrile, 5-[4-[(5-methyl-2-phenyl-4-oxazolyl)methoxy]phenyl]-, (2E,4E)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4-Pentadienenitrile, 5-[4-[(5-methyl-2-phenyl-4-oxazolyl)methoxy]phenyl]-, (E,E)-

FS STEREOSEARCH

MF C22 H18 N2 O2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:350405

REFERENCE 2: 136:37609

REFERENCE 3: 123:143900

L14 ANSWER 14 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 143661-18-1 REGISTRY

CN 2,4-Pentadienenitrile, 5-(2-hydroxyphenyl)-, (Z,E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C11 H9 N O

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE) 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:171149

ANSWER 15 OF 30 REGISTRY COPYRIGHT 2002 ACS 143661-14-7 REGISTRY L14

2,4-Pentadienenitrile, 5-(2-hydroxyphenyl)-, (E,E)- (9CI) (CA INDEX NAME) CN

FS STEREOSEARCH

C11 H9 N O MF

SR CA

CA, CAPLUS LC STN Files:

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:171149

ANSWER 16 OF 30 REGISTRY COPYRIGHT 2002 ACS L14

RN 133505-29-0 REGISTRY

CN2,4-Pentadienenitrile, 5-(2-nitrophenyl)-, (E,E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C11 H8 N2 O2

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 114:206702

L14 ANSWER 17 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 133505-28-9 REGISTRY

2,4-Pentadienenitrile, 5-(4-nitrophenyl)-, (E,E)- (9CI) (CA INDEX NAME) CN

FS STEREOSEARCH

MFC11 H8 N2 O2

SR

LC STN Files: CA, CAPLUS, CASREACT Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 114:206702

L14 ANSWER 18 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 127826-41-9 REGISTRY

CN Benzonitrile, 4-(4-cyano-1,3-butadienyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C12 H8 N2

SR CA

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:22994

L14 ANSWER 19 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 127826-36-2 REGISTRY

CN 2,4-Pentadienenitrile, 5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H8 N2 O2

SR CA

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:22994

L14 ANSWER 20 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 110729-75-4 REGISTRY

CN 2,4-Pentadienenitrile, 5-phenyl-, (2Z,4E)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4-Pentadienenitrile, 5-phenyl-, (Z,E)-

FS STEREOSEARCH

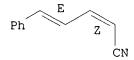
MF C11 H9 N

SR CA

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT

(*File contains numerically searchable property data)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1962 TO DATE)

4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:5970

REFERENCE 2: 111:232055

REFERENCE 3: 111:80290

REFERENCE 4: 107:175620

L14 ANSWER 21 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 100381-42-8 REGISTRY

CN 2,4-Pentadienenitrile, 5-(p-dimethylaminophenyl)- (6CI) (CA INDEX NAME)

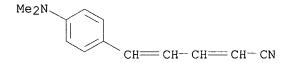
FS 3D CONCORD

MF C13 H14 N2

SR CAOLD

LC STN Files: BEILSTEIN*, CAOLD

(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L14 ANSWER 22 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 81069-74-1 REGISTRY

CN 2,4-Pentadienenitrile, 5-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H8 N2 O2

LC STN Files: CA, CAPLUS, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 97:72098

L14 ANSWER 23 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 81069-73-0 REGISTRY

CN 2,4-Pentadienenitrile, 5-(4-chlorophenyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H8 C1 N

LC STN Files: CA, CAPLUS, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 97:72098

L14 ANSWER 24 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 64432-85-5 REGISTRY

CN 2,4-Pentadienenitrile, 5-phenyl-, (Z,?)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C11 H9 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT

(*File contains numerically searchable property data)

Double bond geometry as described by E or Z.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 113:131683

REFERENCE 2: 108:167071

REFERENCE 3: 87:200756

L14 ANSWER 25 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 62486-11-7 REGISTRY

CN 2,4-Pentadienenitrile, 5-phenyl-, (2E)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4-Pentadienenitrile, 5-phenyl-, (E,?)-

FS STEREOSEARCH

MF C11 H9 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT

(*File contains numerically searchable property data)

Double bond geometry as described by E or Z.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1962 TO DATE)

5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:259958

REFERENCE 2: 113:131683

REFERENCE 3: 108:167071

REFERENCE 4: 87:200756

REFERENCE 5: 86:139581

L14 ANSWER 26 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 53649-66-4 REGISTRY

CN 2,4-Pentadienenitrile, 5-phenyl-, (2E,4E)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4-Pentadienenitrile, 5-phenyl-, (E,E)-

FS STEREOSEARCH

MF C11 H9 N

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT

(*File contains numerically searchable property data)

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1962 TO DATE)

9 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:5970

REFERENCE 2: 114:206702

REFERENCE 3: 111:232055

REFERENCE 4: 111:80290

REFERENCE 5: 107:175620

REFERENCE 6: 107:77283

REFERENCE 7: 104:206308

REFERENCE 8: 96:180289

REFERENCE 9: 81:91144

L14 ANSWER 27 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 38862-55-4 REGISTRY

CN 2,4-Pentadienenitrile, 5,5'-(1,4-phenylene)bis- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C16 H12 N2

LC STN Files: BEILSTEIN*, CA, CAPLUS

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 77:113982

L14 ANSWER 28 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 28541-54-0 REGISTRY

CN 2,4-Pentadienenitrile, 5-p-tolyl- (8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C12 H11 N

LC STN Files: BEILSTEIN*, CA, CAPLUS

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 75:62772

L14 ANSWER 29 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 28541-53-9 REGISTRY

CN 2,4-Pentadienenitrile, 5-(phenyl-d5)- (8CI, 9CI) (CA INDEX NAME)

MF C11 H4 D5 N

LC STN Files: BEILSTEIN*, CA, CAPLUS

(*File contains numerically searchable property data)

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 75:62772

L14 ANSWER 30 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 14164-31-9 REGISTRY

CN 2,4-Pentadienenitrile, 5-phenyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1-Cyano-4-phenylbutadiene

CN 5-Phenylpenta-2,4-dienenitrile

FS 3D CONCORD

MF C11 H9 N

LC STN Files: AGRICOLA, BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, IFICDB,

IFIPAT, IFIUDB, USPATFULL

(*File contains numerically searchable property data)

Ph-CH=CH-CH=CH-CN

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1962 TO DATE)

11 REFERENCES IN FILE CAPLUS (1962 TO DATE) 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 124:288399

REFERENCE 2: 105:78376

REFERENCE 3: 100:5756

REFERENCE 4: 98:88685

REFERENCE 5: 91:74188

REFERENCE 6: 82:156187

REFERENCE 7: 80:29709

REFERENCE 8: 77:82988

REFERENCE 9: 75:62772

REFERENCE 10: 70:57371

(E,E)-2-(benzylamido)-3-styrylacrylonitrile

159.00 g

(E) - 2 - [3-phenyl-n-propylaminothio carbonyl] - 3 - (3,5-diisopropyl-4-hydroxyphenyl) acrylonitrile

```
Welcome to STN International! Enter x:x
LOGINID: ssspta1200exs
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                     Welcome to STN International
* * * * * * * * * *
                 Web Page URLs for STN Seminar Schedule - N. America
 NEWS
                 "Ask CAS" for self-help around the clock
 NEWS 2 Apr 08
                 BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS 3 Apr 09
                 ZDB will be removed from STN
 NEWS 4
         Apr 09
                 US Patent Applications available in IFICDB, IFIPAT, and
 NEWS 5 Apr 19
IFIUDB
                 Records from IP.com available in CAPLUS, HCAPLUS, and
 NEWS 6 Apr 22
ZCAPLUS
                 BIOSIS Gene Names now available in TOXCENTER
         Apr 22
 NEWS
                  Federal Research in Progress (FEDRIP) now available
 NEWS
         Apr 22
                 New e-mail delivery for search results now available
 NEWS 9 Jun 03
                 MEDLINE Reload
 NEWS 10 Jun 10
                 PCTFULL has been reloaded
 NEWS 11 Jun 10
 NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
 NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
                  saved answer sets no longer valid
                  Enhanced polymer searching in REGISTRY
 NEWS 14 Jul 29
                 NETFIRST to be removed from STN
 NEWS 15 Jul 30
                  CANCERLIT reload
 NEWS 16 Aug 08
                  PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 17
         Aug 08
                  NTIS has been reloaded and enhanced
 NEWS 18 Aug 08
                  Aquatic Toxicity Information Retrieval (AQUIRE)
 NEWS 19
         Aug 19
                  now available on STN
                  IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 20 Aug 19
                  The MEDLINE file segment of TOXCENTER has been reloaded
 NEWS 21
         Aug 19
                  Sequence searching in REGISTRY enhanced
 NEWS 22
         Aug 26
                  JAPIO has been reloaded and enhanced
         Sep 03
 NEWS 23
                  Experimental properties added to the REGISTRY file
          Sep 16
 NEWS 24
          Sep 16
                  Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 25
                  CA Section Thesaurus available in CAPLUS and CA
         Sep 16
 NEWS 26
                  CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 27
         Oct 01
                  EVENTLINE has been reloaded
 NEWS 28 Oct 21
                  BEILSTEIN adds new search fields
         Oct 24
 NEWS 29
                  Nutraceuticals International (NUTRACEUT) now available on
 NEWS 30 Oct 24
STN
                  MEDLINE SDI run of October 8, 2002
 NEWS 31
         Oct 25
         Nov 18
                  DKILIT has been renamed APOLLIT
 NEWS 32
                  More calculated properties added to REGISTRY
 NEWS 33
          Nov 25
          Dec 02
                  TIBKAT will be removed from STN
 NEWS 34
          Dec 04
                  CSA files on STN
 NEWS 35
 NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
```

	AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 08:21:39 ON 09 DEC 2002

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 08:21:50 ON 09 DEC 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 8 DEC 2002 HIGHEST RN 475460-75-4 DICTIONARY FILE UPDATES: 8 DEC 2002 HIGHEST RN 475460-75-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> Uploading 09834728.str

L1 STRUCTURE UPLOADED

 \Rightarrow is 11

IS IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s 11

SAMPLE SEARCH INITIATED 08:22:24 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 22 TO ITERATE

100.0% PROCESSED 22 ITERATIONS 3 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 159 TO 721
PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> d 12 1-2

L2 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2002 ACS

RN 153529-89-6 REGISTRY

CN 2,4-Decadienoic acid, 2-cyano-5-(4-methoxyphenyl)-, (?,E)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C18 H21 N O3

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as described by E or Z.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L2 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2002 ACS

RN 134309-71-0 REGISTRY

CN Benzeneacetic acid, .alpha.-amino-, methyl ester, (R)-, 2-cyano-5-(3,4-dimethoxyphenyl)-2,4-pentadienoate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:
CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with
(R)-methyl .alpha.-aminobenzeneacetate (1:1) (9CI)

```
Page 4
```

FS STEREOSEARCH

MF C14 H13 N O4 . C9 H11 N O2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$\begin{array}{c} \text{OMe} \\ \text{CH} = \text{CH} - \text{CH} = \text{C} - \text{CO}_2 \text{H} \end{array}$$

CM 2

CRN 24461-61-8 CMF C9 H11 N O2

Absolute stereochemistry. Rotation (-).

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> s 11 full

FULL SEARCH INITIATED 08:22:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 324 TO ITERATE

100.0% PROCESSED 324 ITERATIONS

77 ANSWERS

SEARCH TIME: 00.00.01

L3 77 SEA SSS FUL L1

=> d 13 1-10

L3 ANSWER 1 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 384808-51-9 REGISTRY

CN 2,4-Pentadienoic acid, 5-(4-bromophenyl)-2-cyano-3-cyclopropyl- (9CI)

(CA

INDEX NAME)

FS 3D CONCORD

MF C15 H12 Br N O2

SR Chemical Library

LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 ANSWER 2 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 380622-84-4 REGISTRY

CN 2,4-Pentadienenitrile, 5-(4-methoxyphenyl)-2-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C18 H15 N O3 S

SR Chemical Library

LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 ANSWER 3 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 380622-83-3 REGISTRY

CN 2,4-Pentadienenitrile, 5-(4-bromophenyl)-2-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C17 H12 Br N O2 S

SR Chemical Library

LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 ANSWER 4 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 380622-82-2 REGISTRY

CN 2,4-Pentadienenitrile, 5-(4-nitrophenyl)-2-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C17 H12 N2 O4 S

SR Chemical Library

LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L3 ANSWER 5 OF 77 REGISTRY COPYRIGHT 2002 ACS
- RN 343568-74-1 REGISTRY
- CN 2,4-Heptadienoic acid, 2-cyano-6-hydroxy-6-methyl-3-(4-methylphenyl)-5-phenyl-, (2E,4Z)- (9CI) (CA INDEX NAME)
- FS STEREOSEARCH
- MF C22 H21 N O3
- SR Reaction Database

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
ANSWER 6 OF 77 REGISTRY COPYRIGHT 2002 ACS
L3
    336130-02-0 REGISTRY
RN
     2-Propenoic acid, 2-methyl-, 6-[[4'-(2-hydroxyethoxy)[1,1'-biphenyl]-4-
CN
     yl]oxy]hexyl ester, homopolymer, 2-cyano-5-phenyl-2,4-pentadienoate (9CI)
     (CA INDEX NAME)
OTHER NAMES:
     4-(2-Hydroxyethoxy)-4'-(6'-biphenyloxyhexyl) methacrylate homopolymer
     .alpha.-cyanocinnamylideneacetate ester
     (C24 H30 O5)x . x C12 H9 N O2
MF
PCT
    Polyacrylic
SR
     CA
LC
     STN Files:
                 CA, CAPLUS
     CM
          1
     CRN 24139-57-9
     CMF C12 H9 N O2
```

$$Ph-CH=CH-CH=C-CO_2H$$

CM 2

CRN 229617-68-9 CMF (C24 H30 O5)x CCI PMS

CM 3

CRN 183234-70-0 CMF C24 H30 O5

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

- L3 ANSWER 7 OF 77 REGISTRY COPYRIGHT 2002 ACS
- RN 284493-92-1 REGISTRY
- CN 2,4-Pentadienoic acid, 5-chloro-5-(4-chlorophenyl)-2-cyano- (9CI) (CA INDEX NAME)
- FS 3D CONCORD
- MF C12 H7 C12 N O2
- SR Chemical Library
- LC STN Files: CHEMCATS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- L3 ANSWER 8 OF 77 REGISTRY COPYRIGHT 2002 ACS
- RN 252912-67-7 REGISTRY
- CN 4,4'-Bipyridinium, 1,1'-bis(1-methylethyl)-, salt with 5-phenyl-2,8-bis(phenylsulfonyl)-2,4,6-nonatrienedinitrile (1:2) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

- CN 2,4,6-Nonatrienedinitrile, 5-phenyl-2,8-bis(phenylsulfonyl)-, ion(1-), 1,1'-bis(1-methylethyl)-4,4'-bipyridinium (2:1) (9CI)
- MF C27 H19 N2 O4 S2 . 1/2 C16 H22 N2
- SR CA
- LC STN Files: CA, CAPLUS

CM 1

CRN 252912-66-6

CMF C27 H19 N2 O4 S2

CM 2

CRN 46903-02-0 CMF C16 H22 N2

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L3 ANSWER 9 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 252912-66-6 REGISTRY

CN 2,4,6-Nonatrienedinitrile, 5-phenyl-2,8-bis(phenylsulfonyl)-, ion(1-) (9CI) (CA INDEX NAME)

MF C27 H19 N2 O4 S2

CI COM

SR CA

L3 ANSWER 10 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 252912-65-5 REGISTRY

CN 4,4'-Bipyridinium, 1,1'-bis(1-methylethyl)-, salt with 2,8-bis(methylsulfonyl)-5-phenyl-2,4,6-nonatrienedinitrile (1:2) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4,6-Nonatrienedinitrile, 2,8-bis(methylsulfonyl)-5-phenyl-, ion(1-), 1,1'-bis(1-methylethyl)-4,4'-bipyridinium (2:1) (9CI)

MF C17 H15 N2 O4 S2 . 1/2 C16 H22 N2

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 252912-64-4 CMF C17 H15 N2 O4 S2

CM 2

CRN 46903-02-0 CMF C16 H22 N2

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> d 13 10-15

L3 ANSWER 10 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 252912-65-5 REGISTRY

CN 4,4'-Bipyridinium, 1,1'-bis(1-methylethyl)-, salt with 2,8-bis(methylsulfonyl)-5-phenyl-2,4,6-nonatrienedinitrile (1:2) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2,4,6-Nonatrienedinitrile, 2,8-bis(methylsulfonyl)-5-phenyl-, ion(1-), 1,1'-bis(1-methylethyl)-4,4'-bipyridinium (2:1) (9CI)

MF C17 H15 N2 O4 S2 . 1/2 C16 H22 N2

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 252912-64-4 CMF C17 H15 N2 O4 S2

CM 2

CRN 46903-02-0 CMF C16 H22 N2

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L3 ANSWER 11 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 252912-64-4 REGISTRY

CN 2,4,6-Nonatrienedinitrile, 2,8-bis(methylsulfonyl)-5-phenyl-, ion(1-) (9CI) (CA INDEX NAME)

MF C17 H15 N2 O4 S2

CI COM

SR CA

L3 ANSWER 12 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 196525-65-2 REGISTRY

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, polymer with 2,2'-[oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bis[oxirane] (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Oxirane, 2,2'-[oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bis-, polymer with 2-cyano-5-phenyl-2,4-pentadienoic acid (9CI) OTHER NAMES: .alpha.-Cyano-.beta.-styryl acrylic acid-Denacol EX 941 copolymer (C12 H22 O5 . C12 H9 N O2) xMF CI PCT Epoxy resin, Polyacrylic, Polyether, Polystyrene SR CA LC STN Files: CA, CAPLUS CM 1 CRN 41638-13-5

$$^{\circ}$$
 $_{\circ}$ $_{\circ}$

CM 2

CRN 24139-57-9 CMF C12 H9 N O2

CMF C12 H22 O5

CCI IDS

$$Ph-CH=CH-CH=C-CO_2H$$

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L3 ANSWER 13 OF 77 REGISTRY COPYRIGHT 2002 ACS

RN 170274-87-0 REGISTRY

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C12 H8 N2 O4

SR CAS Registry Services

LC STN Files: CHEMLIST

$$CH = CH - CH = C - CO_2H$$

$$c_{H} = c_{H} - c_{H} = c_{C} - c_{O_{2}H}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
ANSWER 14 OF 77 REGISTRY COPYRIGHT 2002 ACS
L3
     163579-69-9 REGISTRY
RN
CN
     Disilane, 1,2-dichloro-1,1,2,2-tetramethyl-, polymer with
     2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane],
     2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-,
    polymer with 1,2-dichloro-1,1,2,2-tetramethyldisilane,
     2-cyano-5-phenyl-2,4-pentadienoate (9CI)
MF
     (C21 H24 O4 . C4 H12 C12 Si2)x . x C12 H9 N O2
PCT Epoxy resin, Polyether, Polyother
SR
    CA
LC
     STN Files:
                 CA, CAPLUS
    CM
         1
    CRN 24139-57-9
    CMF C12 H9 N O2
Ph-CH=CH-CH=C-CO2H
```

CM 2

CRN 151458-79-6

CMF (C21 H24 O4 . C4 H12 C12 Si2) \times

CCI PMS

CM 3

CRN 4342-61-4 CMF C4 H12 C12 Si2

CM 4

CRN 1675-54-3 · CMF C21 H24 O4

$$CH_2-O$$
 Me
 CH_2-O
 Me
 Me
 Me

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

- L3 ANSWER 15 OF 77 REGISTRY COPYRIGHT 2002 ACS
- RN 163440-59-3 REGISTRY
- CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)-, (E,E)- (9CI) (CA INDEX NAME)
- FS STEREOSEARCH
- MF C13 H11 N O3
- CI COM
- SR CA

Double bond geometry as shown.

$$\stackrel{E}{\underset{\text{CN}}{\text{CO}_2H}}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 170.24 170.45

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 08:25:03 ON 09 DEC 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 9 Dec 2002 VOL 137 ISS 24 FILE LAST UPDATED: 8 Dec 2002 (20021208/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s 13 L4 70 L3

1598250 CELL

134687 PROLIFERATION

197 INHIBITING CELL PROLIFERATION

(INHIBITING (W) CELL (W) PROLIFERATION)

174654 CANCER

L5 174654 L4 AND INHIBITING CELL PROLIFERATION OR CANCER

=> s hematopoietic cancer

30607 HEMATOPOIETIC

174654 CANCER

L6 33 HEMATOPOIETIC CANCER (HEMATOPOIETIC(W)CANCER)

=> s 14 and 16

L7 0 L4 AND L6

 \Rightarrow s 16 and 15

L8 33 L6 AND L5

=> s leukemia

L9 73957 LEUKEMIA

=> s 14 and 19

L10 0 L4 AND L9

PRIORITY APPLN. INFO.:

```
=> s 19 and 15
          6868 L9 AND L5
=> s lymphoblastic leukemia or myelomonocyte leukemia or chronic myeloid
leukemia
          4750 LYMPHOBLASTIC
         73957 LEUKEMIA
          3588 LYMPHOBLASTIC LEUKEMIA
                  (LYMPHOBLASTIC (W) LEUKEMIA)
            346 MYELOMONOCYTE
         73957 LEUKEMIA
              9 MYELOMONOCYTE LEUKEMIA
                  (MYELOMONOCYTE (W) LEUKEMIA)
        146174 CHRONIC
         16205 MYELOID
         73957 LEUKEMIA
          1637 CHRONIC MYELOID LEUKEMIA
                  (CHRONIC (W) MYELOID (W) LEUKEMIA)
L12
          5105 LYMPHOBLASTIC LEUKEMIA OR MYELOMONOCYTE LEUKEMIA OR CHRONIC
               MYELOID LEUKEMIA
=> s 14 and 112
T<sub>1</sub>13
             0 L4 AND L12
=> d 16 ibib abs hitstr 1-10
     ANSWER 1 OF 33 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER:
                      2002:814445 CAPLUS
DOCUMENT NUMBER:
                          137:324230
TITLE:
                         Fluorescein-labeled antibodies for quantifying
antigen
                          expression, diagnosing disease and evaluating
                          effectiveness of drug therapy
                          Kawai, Shigeto; Iida, Shinichiro; Koishihara, Yasuo
INVENTOR(S):
                          Chuqai Seiyaku Kabushiki Kaisha, Japan
PATENT ASSIGNEE(S):
SOURCE:
                          PCT Int. Appl., 91 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO. KIND DATE
                                           APPLICATION NO. DATE
     -----
                                             -----
     WO 2002084290
                      A1 20021024
                                           WO 2002-JP3703 20020412
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
ΤM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
```

JP 2001-115889 A 20010413

cell

AΒ Provided is a novel method of quantifying antigen expression. example, a method of formulating the correlation between the expression dose of a desired antigen and the fluorescent intensity which involves: (a) the step of prepg. a plural no. of cell groups wherein the expression of the antigen has been preliminarily quantified; (b) the step of prepg. fluorescence-labeled antibody binding specifically to the antigen; (c) the step of measuring the fluorescent intensity of each cell group prepd. in (a) by using the fluorescence-labeled antibody prepd. in (b); and (d) analyzing the correlation between the expression dose of the antigen having been preliminarily quantified and the fluorescent intensities measured in (c). The method is esp. useful for quantifying tumor antigen such as HM1.24; for diagnosing and treating hematopoietic cancer such as bone marrow tumor, lymphatic system tumor and multiple myeloma; and for evaluating effectiveness of medicine on patients. REFERENCE COUNT: THERE ARE 15 CITED REFERENCES AVAILABLE FOR 15 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 2 OF 33 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2002:607265 CAPLUS DOCUMENT NUMBER: 137:167895 TITLE: The hematopoietic system-specific minor histocompatibility antigen HA-1 shows aberrant expression in epithelial cancer cells AUTHOR(S): Klein, Christoph A.; Wilke, Martina; Pool, Jos; Vermeulen, Corine; Blokland, Els; Burghart, Elke; Krostina, Sabine; Wendler, Nicole; Passlick, Bernward; Riethmueller, Gert; Goulmy, Els Department of Immunology, Klinikum Innenstadt, CORPORATE SOURCE: Ludwig-Maximilians University, Munich, 80336, Germany SOURCE: Journal of Experimental Medicine (2002), 196(3), 359-368 CODEN: JEMEAV; ISSN: 0022-1007 PUBLISHER: Rockefeller University Press DOCUMENT TYPE: Journal LANGUAGE: English AΒ Allogeneic stem cell transplantation (SCT) can induce curative graft-vs.-tumor reactions in patients with hematol. malignancies and solid tumors. The graft-vs.-tumor reaction after human histocompatibility leukocyte antigen (HLA)-identical SCT is mediated by alloimmune donor T cells specific for polymorphic minor histocompatibility antigens (mHags). Among these, the mHag HA-1 was found to be restricted to the hematopoietic system. Here, we report on the HA-1 RNA expression by microdissected carcinoma tissues and by single disseminated tumor cells isolated from

membrane of carcinoma cell lines. HA-1-specific cytotoxic T cells lyse epithelial tumor cell lines in vitro, whereas normal epithelial cells are

patients with various epithelial tumors. The HA-1 peptide is molecularly defined, as it forms an immunogenic peptide ligand with HLA-A2 on the

not recognized. Thus, HA-1-specific immunotherapy combined with HLA-identical allogeneic SCT may now be feasible for patients with HA-1+ carcinomas.

THERE ARE 31 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT: 31

THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 3 OF 33 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

CORPORATE SOURCE:

2002:457494 CAPLUS

TITLE:

SOURCE:

Rapid upregulation of telomerase activity in human leukemia HL-60 cells treated with clinical doses of

the DNA-damaging drug etoposide

AUTHOR(S):

Moriarty, T. J.; Dupuis, S.; Autexier, C. Department of Anatomy and Cell Biology, McGill

University, Montreal, QC, Can. Leukemia (2002), 16(6), 1112-1120

CODEN: LEUKED; ISSN: 0887-6924

PUBLISHER:

Nature Publishing Group

DOCUMENT TYPE:

Journal LANGUAGE: English

The enzyme telomerase is implicated in cellular resistance to apoptosis, AΒ but the mechanism for this resistance remains to be elucidated. The ability of telomerase to synthesize new DNA at telomeres suggests that this enzyme might function in the repair of double-stranded DNA breaks. To distinguish the effects of double-stranded DNA break damage and apoptosis on human telomerase activity, we treated the HL-60 human hematopoietic cancer cell line with clin. doses of the chemotherapeutic drug etoposide (0.5 to 5 .mu.M), which allowed us to distinguish between events assocd. with DNA damage-induced cell cycle arrest, and events assocd. with apoptosis. Large (three- to seven-fold) upregulation of telomerase activity occurred soon after etoposide treatment (3 h) in S/G2/M-arresting populations; this upregulation was abolished at onset of apoptotic cell death. No upregulation of

telomerase

activity was obsd. in cells treated with a larger dose of etoposide (5 .mu.M) that caused cells to undergo rapid apoptosis without intervening cell cycle arrests. These observations are consistent with a possible role for telomerase upregulation during the DNA damage response.

REFERENCE COUNT:

THERE ARE 51 CITED REFERENCES AVAILABLE FOR 51

THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 4 OF 33 CAPLUS COPYRIGHT 2002 ACS 2002:353590 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

136:368438

TITLE:

Methods for selecting T-cells specifically

recognizing

minor histocompatibility antigen for use in eliminating cancerous hematopoietic cells

INVENTOR(S):

Perreault, Claude Compatigene Inc., Can.

PATENT ASSIGNEE(S):

PCT Int. Appl., 37 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:]

PATENT INFORMATION:

```
PATENT NO.
                   KIND DATE
                                      APPLICATION NO. DATE
                                       _____
    WO 2002036750
                   A2 20020510
                                      WO 2001-CA1477 20011019
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
            UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    AU 2002013694
                    A5 20020515
                                       AU 2002-13694 20011019
PRIORITY APPLN. INFO.:
                                     US 2000-704911 A 20001102
                                     WO 2001-CA1477 W 20011019
```

AB This invention relates to T-cells that specifically recognize minor histocompatibility antigen(s), methods for selecting these T-cells and uses thereof for eliminating target cells, and more particularly for eliminating hematopoietic cancerous cells. The invention is based on (1) the priming of T-cells specifically reacting against a selected immunodominant ubiquitous MiHA that is expressed by target cells and by non-target cells; and also (2) the selection of a 100 % purified population of T-cells that specifically react against an immunodominant minor histocompatibility antigen which is ubiquitously expressed by the recipient's cells or selectively expressed by specific recipient's target cells only. The major advantage of the invention is that the T-cells used

therein can be transferred from a donor to a compatible recipient without causing to the latter a graft-vs.-host disease (GVHD) reaction.

L6 ANSWER 5 OF 33 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2002:288682 CAPLUS

DOCUMENT NUMBER: 137

137:134656

TITLE:

Celecoxib exhibits the greatest potency amongst cyclooxygenase (COX) inhibitors for growth inhibition of COX-2-negative hematopoietic and epithelial cell

lines
AUTHOR(S): Waske

Honglan;

Waskewich, Chris; Blumenthal, Rosalyn D.; Li,

Stein, Rhona; Goldenberg, David M.; Burton, Jack Garden State Cancer Center Belleville NJ 07109

CORPORATE SOURCE: USA

Garden State Cancer Center, Belleville, NJ, 07109,

SOURCE:

Cancer Research (2002), 62(7), 2029-2033

CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER:

American Association for Cancer Research

DOCUMENT TYPE: Journal LANGUAGE: English

AB Cyclooxygenase-2 (COX-2) is an important cellular target for both therapy and/or prevention of inflammatory disorders and cancer. The advent of selective COX-2 inhibitors now allows a more precise and safer treatment approach. The screening of an array of cancer cell lines for growth inhibitory effects of COX-2-selective and -nonselective inhibitors,

including celecoxib (Celebrex) and rofecoxib (Vioxx), produced two unanticipated findings. Firstly, the antiproliferative effects of celecoxib were noted to be of very similar magnitude for both hematopoietic and epithelial cancer cell lines. Most hematopoietic cell lines had no detectable COX-2 expression by reverse transcription-PCR,

and

none expressed COX-2 protein. In addn., COX-2-neg. epithelial lines were found to have IC50s for celecoxib that were very similar to their COX-2+counterparts. Thus, important antiproliferative effects were obsd. that were independent of both the cell lineage and COX-2 status. Secondly, it was also obsd. that COX-2 inhibitor drugs, celecoxib and rofecoxib, with similar COX-2-selectivity and clin. efficacy for inflammatory indications,

differed significantly in their in vitro antiproliferative effects on cancer cell lines. IC50s of 35-65 .mu.M were obsd. for celecoxib across this entire panel of cell lines. Finally, no difference in the mode or degree of cytotoxicity was apparent between cell lines, because similar levels of apoptosis were obsd. in COX-2+ and -neg. cell lines after treatment with celecoxib, with correspondingly lower levels after rofecoxib treatment. These data are important in that they provide the first direct comparison of epithelial and hematopoietic cancer cell lines, as well as a direct comparison of the in vitro

anticancer effects of the two clin. available COX-2 inhibitors.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR

THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L6 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:183342 CAPLUS

DOCUMENT NUMBER:

137:107140

TITLE:

Adhesion-mediated intracellular redistribution of c-Fas-associated death domain-like IL-1-converting

enzyme-like inhibitory protein-long confers

resistance

to CD95-induced apoptosis in hematopoietic

cancer cell lines

AUTHOR(S):

Shain, Kenneth H.; Landowski, Terry H.; Dalton,

William S.

CORPORATE SOURCE:

Departments of Interdisciplinary Oncology and Biochemistry and Molecular Biology, H. Lee Moffitt Cancer Center and Research Institute, University of

South Florida, Tampa, FL, 33612, USA

SOURCE:

Journal of Immunology (2002), 168(5), 2544-2553

CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER:

American Association of Immunologists

DOCUMENT TYPE: Journal LANGUAGE: English

AB Evasion of immune surveillance is a key step in malignant progression.

Interactions between transformed hematopoietic cells and their environment

may initiate events that confer resistance to apoptosis and facilitate immune evasion. In this report, the authors demonstrate that .beta.1 integrin-mediated adhesion to fibronectin inhibits CD95-induced caspase-8 activation and apoptosis in hematol. tumor cell lines. This adhesion-dependent inhibition of CD95-mediated apoptosis correlated with

enhanced c-Fas-assocd. death domain-like IL-1-converting enzyme-like inhibitory protein-long (c-FLIPL) cytosolic soly. compared with non-adhered cells. Cytosolic c-FLIPL protein preferentially assocd. with cytosolic Fas-assocd. death domain protein (FADD) and localized to the death-inducing signal complex after CD95 ligation in adherent cells. The incorporation of c-FLIPL in the death-inducing signal complex prevented procaspase-8 processing and activation of the effector phase of apoptosis.

Adhesion to fibronectin increased c-FLIPL cytosolic soly. and availability

for FADD binding by redistributing c-FLIPL from a preexisting membrane-assocd. fraction. Increased cytosolic availability of c-FLIPL for FADD binding was not related to increased levels of RNA or protein synthesis. These data show that adhesion of anchorage-independent cells to fibronectin provides a novel mechanism of resistance to CD95-mediated programmed cell death by regulating the cellular localization and availability of c-FLIPL.

REFERENCE COUNT:

62

THERE ARE 62 CITED REFERENCES AVAILABLE FOR

THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L6 ANSWER 7 OF 33 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:40006 CAPLUS

DOCUMENT NUMBER:

137:214448

TITLE:

Intrinsic and extrinsic mechanisms of cd95/fas

resistance: a paradigm for hematopoietic

cancer progression

AUTHOR(S):

Shain, Kenneth H.

CORPORATE SOURCE:

Univ. of South Florida, Tampa, FL, USA

SOURCE:

(2001) 134 pp. Avail.: UMI, Order No. DA3009526

From: Diss. Abstr. Int., B 2001, 62(3), 1181

DOCUMENT TYPE:

LANGUAGE:

English

Dissertation

AB Unavailable

L6 ANSWER 8 OF 33 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2001:659250 CAPLUS

DOCUMENT NUMBER:

136:41866

TITLE:

Benzene and lymphohematopoietic malignancies in

humans

AUTHOR(S):

Hayes, Richard B.; Songnian, Yin; Dosemeci, Mustafa;

Linet, Martha

CORPORATE SOURCE:

Division of Cancer Epidemiology and Genetics, U.S. National Cancer Institute, Bethesda, MD, 20892, USA

SOURCE:

American Journal of Industrial Medicine (2001),

40(2),

117-126

CODEN: AJIMD8; ISSN: 0271-3586

PUBLISHER:

Wiley-Liss, Inc.

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

AB Quant. evaluations of benzene-assocd. risk for cancer have relied primarily on findings from a cohort study of highly exposed rubber workers

in the USA. An epidemiol. investigation in China (NCI/CAPM study)

extended quant. evaluations of cancer risk to a broader range of benzene exposures, particularly at lower levels. We review the evidence implicating benzene in the etiol. of hematopoietic disorders, clarify methodol. aspects of the NCI/CAPM study, and examine the study in the context of the broader literature on health effects assocd. with occupational benzene exposure. Quant. relationships for cancer risk from China and the USA show a relatively smooth increase in risk for acute myeloid leukemia and related conditions over a broad dose range of benzene

exposure (below 200 ppm-years, mostly from the China study, and above 200 ppm-years, mostly from the US study). Risks of acute myeloid leukemia and

other malignant and nonmalignant hematopoietic disorders assocd. with benzene exposure in China are consistent with other information about benzene exposure, hematotoxicity, and cancer risk, extending evidence for hematopoietic cancer risks to levels substantially lower

than had previously been established.

REFERENCE COUNT: 106

THERE ARE 106 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 9 OF 33 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2001:526094 CAPLUS

DOCUMENT NUMBER: 135:136415

Shc associated protein 140 (SAP-140) TITLE: INVENTOR(S): Roifman, Chaim M.; Sharfe, Nigel PATENT ASSIGNEE(S): The Hospital for Sick Children, Can. SOURCE:

PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                   KIND DATE
                                     APPLICATION NO. DATE
                   ----
    WO 2001051509
                   A2
                        20010719
                                     WO 2001-CA23
                                                    20010110
    WO 2001051509
       A3
                        20011129
PRIORITY APPLN. INFO.:
    SAP140 is a novel Shc Assocg. Protein isolated by binding to the tyrosine
AΒ
    phosphatase Lyp. SAP is expressed in hematopoietic cells and is involved
    in signal transduction through both antigen and cytokine receptor
    pathways. SAP140 is pre-activated in Acute Myeloid Leukemia.
    Manipulation of the activity of SAP may be of therapeutic value in AML
and
```

ALL and in uncontrolled T cell diseases or disease of the hematopoietic system in general.

```
ANSWER 10 OF 33 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER:
                          2001:465764 CAPLUS
 DOCUMENT NUMBER:
                          135:193653
TITLE:
                          The Gem GTP-binding protein promotes morphological
                          differentiation in neuroblastoma
AUTHOR(S):
                          Leone, Alvaro; Mitsiades, Nicholas; Ward, Yvona;
                          Spinelli, Beth; Poulaki, Vasiliki; Tsokos, Maria;
                          Kelly, Kathleen
CORPORATE SOURCE:
                          Cell and Cancer Biology Department, Medicine Branch,
                          Division of Clinical Sciences, National Cancer
                          Institute, Bethesda, MD, 20892, USA
SOURCE:
                          Oncogene (2001), 20(25), 3217-3225
                          CODEN: ONCNES; ISSN: 0950-9232
PUBLISHER:
                          Nature Publishing Group
DOCUMENT TYPE:
                          Journal
LANGUAGE:
                          English
     Gem is a small GTP-binding protein within the Ras superfamily whose
     function has not been detd. The authors report here that ectopic Gem
     expression is sufficient to stimulate cell \bar{\text{flattening}} and neurite
     extension in N1E-115 and SH-SY5Y neuroblastoma cells, suggesting a role
     for Gem in cytoskeletal rearrangement and/or morphol. differentiation of
     neurons. Consistent with this potential function, in clin. samples of
     neuroblastoma, Gem protein was most highly expressed within cells which
     had differentiated to express ganglionic morphol. Gem was also obsd. in
     developing trigeminal nerve ganglia in 12.5 day mouse embryos,
     demonstrating that Gem expression is a property of normal ganglionic
     development. Although Gem expression is rare in epithelial and
     hematopoietic cancer cell lines, constitutive Gem levels
     were detected in several neuroblastoma cell lines and could be further
     induced as much as 10-fold following treatment with PMA or the
     acetylcholine muscarinic agonist, carbachol.
REFERENCE COUNT:
                               THERE ARE 21 CITED REFERENCES AVAILABLE FOR
                         21
THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT
=> d his
     (FILE 'HOME' ENTERED AT 08:21:39 ON 09 DEC 2002)
     FILE 'REGISTRY' ENTERED AT 08:21:50 ON 09 DEC 2002
L1
                STRUCTURE UPLOADED
L2
              3 S L1
L3
             77 S L1 FULL
     FILE 'CAPLUS' ENTERED AT 08:25:03 ON 09 DEC 2002
L4
             70 S L3
L5
         174654 S L4 AND INHIBITING CELL PROLIFERATION OR CANCER
L6
             33 S HEMATOPOIETIC CANCER
L7
              0 S L4 AND L6
L8
             33 S L6 AND L5
L9
          73957 S LEUKEMIA
L10
              0 S L4 AND L9
L11
          6868 S L9 AND L5
```

CMF C12 H9 N O2

L12 5105 S LYMPHOBLASTIC LEUKEMIA OR MYELOMONOCYTE LEUKEMIA OR CHRONIC M L13 0 S L4 AND L12 => d ibib abs hitstr 14 1-70 ANSWER 1 OF 70 CAPLUS COPYRIGHT 2002 ACS 2001:299090 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 134:334331 TITLE: Liquid crystal-alignment film and its preparation Sakai, Takeya; Kawatsuki, Yoshihiro INVENTOR(S): PATENT ASSIGNEE(S): Hayashi Telempu Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF DOCUMENT TYPE: Patent Japanese LANGUAGE: FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE JP 2001117102 A2 20010427 JP 1999-300455 19991022 AΒ The alignment film is prepd. by (1) applying a polymer capable of photoinduced orientation on a substrate, and (2) irradiating an UV contg. both the complete and incomplete polarized light onto the polymer to obtain liq. crystal-alignment ability. The polymer may be anisotropically dimerized by the UV radiation. The polymer may have a side chain selected from (substituted) .beta.-(2-furyl)acryloyl, cinnamoyl, and cinnamylideneacetoyl groups. The polymer may have a main chain of a polyacrylate, polymethacrylate, polysiloxane, etc. Large alignment film can be manufd. by the method in high productivity. Thus, 4-Hydroxyethoxy-4'-(6'-biphenyloxyhexyl) methacrylate cinnamate homopolymer was applied on a substrate coated with an ITO, then nonpolar UV was irradiated onto the polymer via a declinedly arranged quartz plate to form an alignment film. A TN liq. crystal cell using the alignment film was manufd. TΤ **336130-02-0P**, 4-(2-Hydroxyethoxy)-4'-(6'-biphenyloxyhexyl) methacrylate homopolymer .alpha.-cyanocinnamylideneacetate ester RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (prepn. and dimerization; in prepn. of liq. crystal-alignment film by irradiating UV of low polarization degree onto polymer capable of photoinduced dimerization or orientation) RN 336130-02-0 CAPLUS CN 2-Propenoic acid, 2-methyl-, 6-[[4'-(2-hydroxyethoxy)[1,1'-biphenyl]-4yl]oxy]hexyl ester, homopolymer, 2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME) CM 1 CRN 24139-57-9

$$\begin{array}{c} \texttt{CN} \\ | \\ \texttt{Ph-CH-CH-CH-CH-C-CO_{2}H} \end{array}$$

CM 2

CRN 229617-68-9 CMF (C24 H30 O5)x CCI PMS

CM 3

CRN 183234-70-0 CMF C24 H30 O5

L4 ANSWER 2 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1999:802684 CAPLUS

DOCUMENT NUMBER: 132:57190

TITLE: Information recording media and method for

information

recording

INVENTOR(S): Saito, Naoki; Shibata, Michihiro PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11348420	A2	19991221	JP 1998-156206	19980604
OTHER SOURCE(S):	MA	RPAT 132:57190		
GI				

$$\begin{array}{c}
A & C \\
\hline
D & (1/K) X k^{+}
\end{array}$$

AB The title recording media have a recording layer contg. a dye I (R1 = substitution group on methine chain; A-D = substitution groups satisfying total Hammett of A and B and that of C and D (.sigma.p) .gtoreq.0.6; A

and

B or C and D may form a ring by bonding with unconjugated chain; n = integer of 0-5; R1 may differ when n .gtoreq.2; Xk+ = onium ion; k = integer of 0-10) formed on a transparent disk of thickness 0.6 .+-. 0.1

mm

having pregrooves of track pitch 0.6-0.9 .mu.m. Recording of information into the above stated media is carried out by irradn. of laser of wavelength 600-700 nm. Write once optical disks showing durable information storage are manufd.

IT 252912-65-5 252912-67-7

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(write once optical disks contg. oxonol dyes and information recording by laser irradn.)

RN 252912-65-5 CAPLUS

CN 4,4'-Bipyridinium, 1,1'-bis(1-methylethyl)-, salt with 2,8-bis(methylsulfonyl)-5-phenyl-2,4,6-nonatrienedinitrile (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 252912-64-4 CMF C17 H15 N2 O4 S2

CM 2

CRN 46903-02-0 CMF C16 H22 N2

RN 252912-67-7 CAPLUS
CN 4,4'-Bipyridinium, 1,1'-bis(1-methylethyl)-, salt with
5-phenyl-2,8-bis(phenylsulfonyl)-2,4,6-nonatrienedinitrile (1:2) (9CI)
(CA INDEX NAME)

CM 1

CRN 252912-66-6 CMF C27 H19 N2 O4 S2

CM 2

CRN 46903-02-0 CMF C16 H22 N2

SOURCE:

L4 ANSWER 3 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1999:499578 CAPLUS

DOCUMENT NUMBER: 131:170891

TITLE: Photoreactivity of polymers with dimerizable

side-groups. Kinetic analysis for probing morphology

and molecular organization

AUTHOR(S): Coqueret, Xavier

CORPORATE SOURCE: Laboratoire Chimie Macromoleculaire, Univ. Sciences

Technologies Lille, Villeneuve d'Ascq, F-59655, Fr. Macromolecular Chemistry and Physics (1999), 200(7),

1567-1579

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

AB The solid state photoreactivity of polymers with pendant chromophores of the cinnamic type was examd. by monitoring the reaction by UV spectroscopy. Two series of photosensitive polymers with polysiloxane or polyvinylamine main chains were selected to exemplify specific behaviors contrasting on various aspects with that of poly(vinyl cinnamate) as the ref. photocrosslinkable polymer. Valuable kinetic information was obtained from simple photoirradn. expts. for probing the phys. structure of the condensed polymeric material and for studying the influence of chromophore content. Photoisomerization of the chromophore competes efficiently with dimerization for both the liq. polysiloxanes with cinnamic esters connected by long spacers and for the glassy

cinnamoylated

polyvinylamines, the d. of sites paired for dimerization being expectedly low in these amorphous matrixes. The variations of the quantum yield for dimerization in the neat polymers as a function of their compn. are discussed and correlated to the changes of practical sensitivity for photocuring. For polysiloxanes with pendant cyanostyrylacrylic groups, the leveled reactivity obsd. with quantum yields at zero conversion independent on the macroscopic chromophore content in the samples is explained by phase sepn. leading to dispersed domains rich in photoreactive side-groups. The layered order evidenced by wide-angle x-ray scattering is consistent with the clean and reversible photoreaction. In spite of the discussed structural differences, the variation of the normalized quantum yield for dimerization

.PHI.Dim/.PHI.0

as a function of conversion .pi. is described by the same scaling law .PHI.Dim/.PHI.0 = (1-.pi.)3 as was established for the amorphous and homogeneous samples of cinnamoylated polysiloxanes or polyvinylamines.

IT 24139-57-9D, .alpha.-Cyano-.beta.-styrylacrylic acid, ester with
allyl glycidyl ether-functionalized di-Me Me hydrogen siloxane
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)

(kinetic anal. for probing morphol. and mol. organization of photoreactive polymers with dimerizable side-groups)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

CN | Ph- CH- CH- CH- C- CO2H

REFERENCE COUNT:

56

THERE ARE 56 CITED REFERENCES AVAILABLE FOR

THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L4 ANSWER 4 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1997:617047 CAPLUS

DOCUMENT NUMBER: 127:285953

TITLE: Waterless lithographic printing plate precursor

having

increased elasticity

INVENTOR(S): Suezawa, Mitsuru; Kokuni, Masahiro; Ikeda, Norimasa

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09230585	A2	19970905	JP 1996-5912	19960117
PRIORITY APPLN. INFO.	:		JP 1995-15190	19950201
			JP 1995-335107	19951222

AB The plate precursor comprises at least a photodimerization-type presensitized layer and a silicone rubber layer on a substrate, wherein the photodimerization-type layer has the following stretch properties after the exposure: (1) the initial modulus of elasticity 5-75 kgf/mm2; and preferably (2) the breakage elongation .gtoreq. 10 %. The plate precursor provided excellent image reprodn. and printability because of the increased elasticity.

IT 196525-65-2, .alpha.-Cyano-.beta.-styryl acrylic acid-Denacol EX
941 copolymer

RL: TEM (Technical or engineered material use); USES (Uses) (photodimerizable compd. in waterless lithog. printing plate precursor)

RN 196525-65-2 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, polymer with 2,2'-[oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bis[oxirane] (9CI) (CFINDEX NAME)

CM 1

CRN 41638-13-5 CMF C12 H22 O5

CCI IDS

2 (D1-Me)

CM

CRN 24139-57-9 CMF C12 H9 N O2

$$\begin{array}{c} CN \\ | \\ Ph-CH \longrightarrow CH-CH \longrightarrow C-CO_2H \end{array}$$

ΙT 24139-57-9

> RL: RCT (Reactant); RACT (Reactant or reagent) (photodimerizable compd. in waterless lithog. printing plate precursor having increased elasticity)

24139-57-9 CAPLUS RN

2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX CNNAME)

ANSWER 5 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1997:511943 CAPLUS

DOCUMENT NUMBER: 127:128653

TITLE: Polymers for reversible photoinduced sol-gel

transitions

INVENTOR(S): Russell, Alan J.; Beckman, Eric J.; Andreopoulos,

Fotios M.; Wagner, William R. University of Pittsburgh, USA

PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ~~----Al 19970619 WO 1996-US19709 19961211 W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS,

LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG US 5990193 19991123 US 1995-571250 Α 19951212 AU 9711306 Α1 19970703 AU 1997-11306 19961211 US 6174645 В1 20010116 US 1999-304417 19990503 PRIORITY APPLN. INFO.: US 1995-571250 A 19951212 WO 1996-US19709 W 19961211 AB The present invention provides crosslinked polymeric networks that are reversibly crosslinked upon exposure to light of a suitable wavelength. In one embodiment photocrosslinkage-branched hydrophilic polymers contq. photochromic groups are synthesized. Ciannamylidene groups and derivs. of cinnamylidene are preferably used as the photochromic agents or photocrosslinking agents. IT 24139-57-9DP, polyethylene oxide-modified with RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (synthesis and use for reversible photogelation) RN 24139-57-9 CAPLUS CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \texttt{CN} \\ | \\ \texttt{Ph-CH-CH-CH-C-CO_{2}H} \end{array}$$

L4 ANSWER 6 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1996:672668 CAPLUS

DOCUMENT NUMBER:

126:8870

TITLE:

Use of Liquid Matrixes for Matrix-Assisted Laser

Desorption Ionization of Polyglycols and

Poly(dimethylsiloxanes)

AUTHOR(S):

Williams, John B.; Gusev, Arkady I.; Hercules, David

Μ.

CORPORATE SOURCE:

Department of Chemistry, University of Pittsburgh,

Pittsburgh, PA, 15260, USA

SOURCE:

Macromolecules (1996), 29(25), 8144-8150

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Liq. matrixes were developed and studied for application in the MALDI anal. of polyglycols and poly(dimethylsiloxane). Characteristic pos. ion MALDI-TOF mass spectra were obtained from over 20 liq. matrixes. These systems are characterized by rapid and simple prepn. and exhibited good vacuum stability. The spot-to-spot and point-to-point reproducibility of signal intensity and mol. wt. values are indicative of the homogeneous environment created by liq. matrixes. The best performance was achieved when the chromophore, 2-cyano-5-phenyl-2,4-pentadienoic acid, was used in

the analyte or analyte/moderator systems (moderator = nonabsorbing lig.) at or near satn. concns. Internal stds., including silver and low mol. wt. polyglycols, have been successfully employed for mass calibration. Comparison of MALDI mol. wt. data with those obtained from SIMS and GPC shows some systematic disparities. Possible reasons for these differences

are discussed. Excellent agreement is seen between mol. wt. values obtained with liq. and solid MALDI matrixes. However, conventional solid MALDI matrixes generally exhibit better resoln. and can be applied for anal. of higher mol. wt. materials. This may be related to the higher laser intensity required to produce ions from liq. matrixes.

IT 24139-57-9, 2-Cyano-5-phenyl-2,4-pentadienoic acid RL: ARU (Analytical role, unclassified); ANST (Analytical study) (absorber; liq. matrixes for MALDI spectrometry of polyglycols and poly(dimethylsiloxane))

24139-57-9 CAPLUS RN

CN2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX

CN Ph-CH=CH-CH=C-CO2H

ANSWER 7 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1996:281408 CAPLUS

DOCUMENT NUMBER: 125:32902

TITLE: Lithium bromide as a new catalyst for carbon-carbon

bond formation in the solid state

AUTHOR(S): Prajapati, Dipak; Lekhok, Kushal C.; Sandhu, Jagir

S.;

PUBLISHER:

Ghosh, Anil C.

CORPORATE SOURCE: Regional Res. Lab., Assam, 785 006, India

SOURCE:

Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1996), (9),

959-960

CODEN: JCPRB4; ISSN: 0300-922X Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

Lithium bromide catalyzes the condensation of carbonyl compds. RCHO [R = Ph, (E)-PhCH:CH, Me, 2-furyl, 4-quinolyl, 4-02NC6H4] with active methylene

compds. R'CH2CN (R' = cyano, CO2Et, CO2H) in the absence of solvent, to afford olefinic products (E)-RCH:C(CN)R' in high yields.

IT 81620-80-6P

> RL: SPN (Synthetic preparation); PREP (Preparation) (lithium bromide-catalyzed condensation of aldehydes with methylene compds.)

81620-80-6 CAPLUS RN

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

```
E E Ph
```

```
ANSWER 8 OF 70 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER:
                         1995:280372 CAPLUS
DOCUMENT NUMBER:
                         122:315194
TITLE:
                         New synthesis and functionalization of photosensitive
                         poly(silyl ether) by addition reaction of bisepoxide
                         with dichlorosilane
AUTHOR(S):
                         Kameyama, Atsushi; Hayashi, Nobuyuki; Nishikubo,
                         Tadatomi
CORPORATE SOURCE:
                         Fac. Eng., Kanagawa Univ., Yokohama, 221, Japan
SOURCE:
                         ACS Symposium Series (1994), 579(Polymeric Materials
                         for Microelectronic Applications), 443-54
                         CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER:
                         American Chemical Society
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     A poly(silyl ether) contg. Si-Si bonds was successfully synthesized as a
     new class of Si-contg. polymers by the polyaddn. of 1,2-
     dichlorotetramethyldisilane (I) with bisphenol A diglycidyl ether (II) in
     the presence of a quaternary onium salt catalyst, e.g.,
tetrabutylammonium
     chloride. The polymer contained pendant chloromethyl groups and was
     readily modified with photocrosslinkable compds., e.g.,
     4-dimethylamino-.alpha.-cyanocinnamic acid, by a substitution reaction
     using 1,8-diazabicyclo[5.4.0]undecene-7 under mild conditions to give
     multifunctional photopolymers having both a pos.-working moiety in the
     main chain and a neg.-working moiety in the side chain. The photochem.
     properties of both the I-II copolymer and photocrosslinkable
     compd.-modified polymers were studied. The I-II copolymer was decompd.
     smoothly in a soln. by irradn. with UV light. The photochem. reaction of
     the photocrosslinkable-compd.-modified I-II copolymers was controlled
     easily by selecting the wavelength of the irradn.
IT
     163579-69-9P
     RL: PEP (Physical, engineering or chemical process); PRP (Properties);
SPN
     (Synthetic preparation); PREP (Preparation); PROC (Process)
        (synthesis and functionalization of photosensitive poly(silyl ether)
by
        addn. reaction of bisepoxide with dichlorosilane)
RN
     163579-69-9 CAPLUS
CN
     Disilane, 1,2-dichloro-1,1,2,2-tetramethyl-, polymer with
     2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane],
     2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)
     CM
    CRN 24139-57-9
    CMF C12 H9 N O2
```

$$Ph-CH=CH-CH=C-CO_2H$$

CM 2

CRN 151458-79-6

CMF (C21 H24 O4 . C4 H12 C12 Si2) x

CCI PMS

CM 3

CRN 4342-61-4 CMF C4 H12 Cl2 Si2

CM 4

CRN 1675-54-3 CMF C21 H24 O4

$$CH_2-O$$
 Me
 CH_2-O
 CH_2
 O
 Me
 Me
 Me

L4 ANSWER 9 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1994:667339 CAPLUS

DOCUMENT NUMBER: 121:267339

TITLE: Nonlinear optical device with orientation stability

and its manufacture

INVENTOR(S): Takeya, Yutaka; Sakakibara, Taro

PATENT ASSIGNEE(S): Teijin Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

----JP 06208146 A2 19940726 JP 1993-4080 19930113

OTHER SOURCE(S): MARPAT 121:267339

The device consists of a Si-contg. sol-gel glass support contg. a nonlinear optical carboxylic acid amine salt R1Ar1(CH:CH)nCH:C(CN)CO2H.Z [I; n = 0-2; Ar1 = C5-14 arom. group; R1 = R2R3N, its hydrohalide salt, R4O, R5S, CN, CO2R6, OCOR7, CONR8R9, NR10COR11, R12; R2-12 = C1-8 hydrocarbyl, H; Z = 1-phenylethylamine, 1-alpha.-naphthylethylamine, 1-phenyl-2-methylethylamine, 1-phenyl-2-aminopropane, 2-amino-1-butanol, 1-amino-2-propanol, 2-amino-1-propanol, 2-amino-1-(p-nitrophenyl)-1,3-propanediol, 2-dimethylamino-1-phenyl-1-benzyl-1-propanol, and/or 1-(N,N-dimethylamino)-1-phenylpropylamine], whose dipole moment is oriented in the thickness direction. The glass may be obtained from Si(OR)4 (R = C1-4 hydrocarbyl). The device is manufd. by mixing a Si alkoxide alc. contg. a polar solvent with b.p. 100-200.degree. and I with H2O and corona polling at voltage 0.5-40 kV and 100-200.degree. to orient I and polymg. the alkoxide simultaneously. The device showed stable 2nd harmonic generation.

IT 158698-71-6

RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(nonlinear optical device consisting of silicon-contg. sol-gel glass support contg. carboxylic acid amine salt with good orientation stability)

RN 158698-71-6 CAPLUS

2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)-, compd. with alpha.-methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CN

CRN 126057-96-3 CMF C13 H11 N O3

CM 2

CRN 618-36-0 CMF C8 H11 N

ANSWER 10 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:617220 CAPLUS

DOCUMENT NUMBER: 121:217220

TITLE: Nonlinear optical devices with orientation stability

INVENTOR(S): Takeya, Yutaka; Sakakibara, Taro

PATENT ASSIGNEE(S): Teijin Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

KIND DATE PATENT NO. APPLICATION NO. DATE ---------JP 06186599 A2 19940708 JP 1992-336092 19921216

OTHER SOURCE(S): MARPAT 121:217220

AB The devices contain nonlinear optical compds. R1Ar1(CH:CH)nCH:C(CN)CO2H (n

 \approx 0, 1, 2; Ar1 = C5-14 arom. group; R1 = R2R3N (hydrogen halides), R4O, R5S, CN, CO2R6, OCOR7, CONR8R9, NR10COR11, R12; R2-12 = C1-8 hydrocarbon, H) supported with Si-based sol-gel glass, in which dipole moment is oriented to the thickness direction. The devices are manufd. by mixing

Si

alkoxide-contg. alc. solns. with polar solvents with b.p. 100-200.degree. and the compds., then with H2O and basic catalysts, and applying vol. with

0.5-40 kV at 100-200.degree. to orient by corona poling and polymerize the

Si alkoxides.

ΙT 126057-96-3

RL: TEM (Technical or engineered material use); USES (Uses) (CN- and CO2H-contg. diene compds. supported with Si-based glass for nonlinear optical devices with heat stability)

126057-96-3 CAPLUS RN

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

ANSWER 11 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1994:246195 CAPLUS

DOCUMENT NUMBER: 120:246195

TITLE: Nonlinear optical properties of poled polymer of

phenoxy resin containing .alpha.-cyano unsaturated

carboxylate

AUTHOR(S): Sugihara, Okihiro; Nakayama, Hideki; Okamoto, Naomichi; Sakakibara, Taro; Taketani, Yutaka

CORPORATE SOURCE: Fac. Eng., Shizuoka Univ., Hamamatsu, 432, Japan

SOURCE: Japanese Journal of Applied Physics, Part 2: Letters

(1994), 33(3A), L321-L323

CODEN: JAPLD8; ISSN: 0021-4922

DOCUMENT TYPE:

LANGUAGE:

Journal English

AB A new nonlinear optical polymer of phenoxy resin contg.

2-cyano-5-(4-methoxyphenyl)-2,4-pentadienoate as a pendant group is synthesized. A high concn. (84%) of chromophores with a relatively high value of hyperpolarizability (50 .times. 10-30 esu) is obtained. The corona-poled polymer film shows hypochromic shift (.phi. = 0.084) and birefringence (.DELTA..eta.(.omega.) = 0.9% and .DELTA..eta.(2.omega.) = 1.6%). A second-order nonlinear coeff. of d33 = 22 pm/V is achieved.

The

value decreases to 70% after 10 h but remains stable thereafter.

IT 154452-29-6

RL: PRP (Properties)

(nonlinear optical properties of poled)

RN 154452-29-6 CAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with

(chloromethyl) oxirane,

(E,E)-2-cyano-5-(4-methoxyphenyl)-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 163440-59-3 CMF C13 H11 N O3

Double bond geometry as shown.

CM 2

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O)x

CCI PMS

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

CM 4

80-05-7 CRN C15 H16 O2 CMF

CAPLUS COPYRIGHT 2002 ACS ANSWER 12 OF 70

ACCESSION NUMBER:

1994:217660 CAPLUS

DOCUMENT NUMBER:

120:217660

TITLE:

Preparation of pyrrolothiazoles as pharmaceuticals

Nagaoka, Hitoshi; Shishikura, Junichi; Tomioka,

Kenichi; Mase, Toshasu

PATENT ASSIGNEE(S):

SOURCE:

Yamanouchi Pharma Co Ltd, Japan

Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

INVENTOR(S):

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	API	PLICATION NO.	DATE
JP 05230069	A2	19930907	JP	1992-70152	19920220
	3.67	DDM 100.017660			

OTHER SOURCE(S):

MARPAT 120:217660

GI

$$Q^{1} = -A$$

$$Q^{1} = -A$$

$$R^{1}$$

$$R^{2}$$

$$Q^{2} = R^{2}$$

$$R^{3}$$

$$R^{2}$$

$$R^{3}$$

$$R^{2}$$

$$R^{3}$$

$$R^{2}$$

$$R^{3}$$

Pyrrolothiazoles I [Z = Q1-3; R1-3 = H, halo, lower (halo)alkyl, alkoxy,AΒ alkylthio, alkylsulfinyl, or alkylsulfonyl, OH, cyano, NO2; A =

with

(substituted) alkylene, alkenylene, or alkynylene; if A = unsubstituted alkylene, then R1 = R2 = R3 .noteq. H], their salts, stereoisomers, and solvates are prepd. as platelet-activating factor antagonists and thromboxane A2 inhibitors (no data). 2-Cyano-5-(4-methoxyphenyl)-2,4-decadienoic acid (372 mg) was chlorinated with (COCl)2 in DMF-CH2Cl2 at room temp. for 1 h to give acid chloride. Sep., 400 mg I (Z = OCMe3, 3-pyridyl) was treated with CF3CO2H at room temp. for 1 h and treated

the acid chloride and NEt3 at room temp. for 12 h to give 191 mg I [Z = Q1, R1 = 4-OMe, R2 - R3 = H, A = C(CN):CHCH:C(CH2)4Me, 3-pyridyl].

IT 153529-89-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as intermediate for pyrrolothiazole pharmaceuticals)

RN 153529-89-6 CAPLUS

CN 2,4-Decadienoic acid, 2-cyano-5-(4-methoxyphenyl)-, (?,E)- (9CI) (CA INDEX NAME)

Double bond geometry as described by E or Z.

$$(CH_2)_4$$

Me

 CO_2H
 CN

L4 ANSWER 13 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:54333 CAPLUS

DOCUMENT NUMBER: 120:54333

TITLE: Preparation of sulfonamidoaryl hydroxamic acids as

inflammation and tumor inhibitors

INVENTOR(S): Ohtani, Mitsuaki; Arita, Hitoshi; Sugita, Kenji;

Matsuura, Takaharu; Shirahase, Kazuhiro

PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan

SOURCE: PCT Int. Appl., 125 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA!	TENT NO.		KIND	DATE		APPLICATION NO.	DATE
	- -						
WO	9312075		A1	19930624		WO 1992-JP1593	19921207
	W: JP,	KR,	US				
	RW: AT,	BE,	CH, DE,	DK, ES,	FR,	GB, GR, IE, IT, LU,	MC, NL, PT, SE
ΕP	570594		A1	19931124		EP 1992-924883	19921207
EΡ	570594		B1	19970730			
	R: AT,	ΒE,	CH, DE,	DK, ES,	FR,	GB, GR, IT, LI, LU,	MC, NL, PT, SE
AT	156116		E	19970815		AT 1992-924883	19921207
ES	2107557		Т3	19971201		ES 1992-924883	19921207
US	5534654		Α	19960709		US 1993-98272	19930803

PRIORITY APPLN. INFO.:

JP 1991-350793

19911210 19921207

OTHER SOURCE(S):

WO 1992-JP1593 MARPAT 120:54333

GI

Q=
$$XCONR^1OR^2$$
 $NHSO_2Ph$ III $C \equiv CCH = CHCONHOH$

AB The title compds. R2ONR1COXA1YNR3BA2 (I) [A1 = (substituted) arom. ring, arom. heterocyclic ring; A2 = H, (substituted) aryl, arom. heterocyclic ring; B = single bond, B1B2; B1 = CO, SO2; B2 = alkylene, alkenylene, etc.; X = (substituted) alkylene which may have O, S, N and may have unsatd. bond; Y = single bond, heteroatom, (substituted) alkylene which may contain heteroatom and may have unsatd. bond; X and N (which is linked

to Y) may together form a moiety Q; R1 - R3 = H, (substituted) alkyl, aryl] were prepd. I inhibit hemangioendothelial cell growth, the development of a lymphocyte adhesion factor, and ras gene-induced cell transformation and are useful as inflammation and tumor inhibitors. Condensation of carboxylic acid (E)-II (R = OH) with NH2OH.HCl in DMF contg. N-hydroxysuccinimide, N,N-dicyclohexylcarbodiimide, and Et3n gave (E)-II (R = NHOH). Hydroxamic acid (E)-III in vitro exhibited MIC of 0.039 .mu.M against ras gene-induced cell transformation.

IT 151720-71-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of inflammation and tumor inhibitor)

RN 151720-71-7 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-[2-[(phenylsulfonyl)amino]phenyl]-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 14 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1993:427484 CAPLUS

DOCUMENT NUMBER:

119:27484

TITLE:

Cadmium iodide as a new catalyst for Knoevenagel

condensations

AUTHOR(S):

Prajapati, Dipak; Sandhu, Jagir S.

CORPORATE SOURCE:

Div. Drugs Pharm. Chem., Reg. Res. Lab., Jorhat, 785

006, India

SOURCE:

Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999)

(1993), (6), 739-40

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE:

Journal English

LANGUAGE:
OTHER SOURCE(S):

CASREACT 119:27484

AB Cadmium iodide catalyzes the condensation of aldehydes with active methylene compds., in the absence of solvent, to afford olefinic products in high yields. Thus, benzaldehyde, malononitrile, and KCN was mixed at room temp. for 3 min then heated 5 min at 75.degree. to give 95 % PhCH:C(CN)2.

IT 148238-26-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 148238-26-0 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, (Z,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 15 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1993:124153 CAPLUS

DOCUMENT NUMBER:

118:124153

TITLE:

Bismuth(III) chloride as a new catalyst for

Knoevenagel

condensation in the absence of solvent

AUTHOR(S):

Prajapati, Dipak; Sandhu, Jagir S.

CORPORATE SOURCE:

Div. Drugs Pharm. Chem., Reg. Res. Lab., Jorhat, 785

006, India

SOURCE:

Chemistry Letters (1992), (10), 1945-6

CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 118:124153

AB The Knoevenagel condensation of various aldehydes was carried out under heterogeneous catalysts conditions using bismuth(III)chloride in absence of solvent. The method gives high yields of Knoevenagel products.

IT 81620-80-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, by bismuth trichloride-catalyzed Knoevenagel reaction of .alpha.,.beta.-unsatd. aldehyde with active methylene compd.)

RN 81620-80-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 16 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1993:104955 CAPLUS

DOCUMENT NUMBER:

118:104955

TITLE:

Radiation-curable isobutylene copolymers for coating

and adhesive applications

INVENTOR(S):

Audett, Jay Douglas; Dias, Anthony Jay; Powers,

Kenneth William; Wang, Hsien Chang

PATENT ASSIGNEE(S):

Exxon Chemical Patents, Inc., USA

SOURCE:

PCT Int. Appl., 31 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

16

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO. DATE
WO 9211295 W: JP	A1	19920709	WO 1991-US9653 19911219
RW: AT, BE,	CH, DE	, DK, ES,	FR, GB, GR, IT, LU, MC, NL, SE
AT 140465	E	19960815	AT 1990-905077 19891120
ES 2090128	Т3	19961016	ES 1990-905077 19891120
EP 563271	A1	19931006	EP 1992-903232 19911219
R: AT, BE,	CH, DE	, DK, ES,	FR, GB, GR, IT, LI, LU, NL, SE
JP 06504078	T2	19940512	JP 1991-503751 19911219
PRIORITY APPLN. INFO	.:		US 1990-633645 A 19901220
			EP 1990-905077 A 19891120
			WO 1991-US9653 W 19911219

AB The title polymers are prepd. from C4-7 isoolefins and p-alkylstyrenes (A)

with radiation-reactive functional groups, optionally nonreactive groups, at the p-alkyl groups of A. Thus, a 97.5:2.5 mol% isobutylene-p-methylstyrene copolymer (I) was brominated at 40.degree. under light to form a I contg. 0.9 mol% benzylic bromide group, which can be further reacted with Et3N, Et3P, Na diethyldithiocarbamate, carboxylic acid (esters), fatty acid (esters), and photoinitiator derivs. A PhMe soln.

of

I-4-hydroxybenzophenone reaction product was formed as a 1-mil film on a steel plate or blended (1:1) with ECR143H tackifier and exposed under 0.24-J/cm2 UV radiation to give a film with good edge anticorrosion (10 days in 5% aq. NaCl soln.) or a pressure sensitive adhesive, resp.

IT 24139-57-9DP, .alpha.-Cyanocinnamylidene-acetic acid, reaction products with brominated or chlorinated isobutylene-methylstyrene copolymer

L4 ANSWER 17 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1993:104952 CAPLUS

DOCUMENT NUMBER:

118:104952

TITLE:

Radiation-curable isobutylene copolymers for lithographic and corrosion-resistant coating

applications

INVENTOR(S):

Audett, Jay Douglas; McElrath, Kenneth Odell

Exxon Chemical Patents, Inc., USA PCT Int. Appl., 118 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 16

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PAT	TENT NO.	K	IND	DATE			A	PPLIC	ATIC	N NO		DATE	
	9211322 9211322 W: JP			1992 1992			W	0 199	1-US	9649	€	1991	1219
		BE, CH	, DE	DK,	ES,	FR,	GB,	GR,	IT,	LU,	MC,	NL,	SE
AT	140465	,	E .	1996	0815		A	Т 199	0-90	507	7	1989	1120
	2090128												
EP	563251		A1	1993	1006		E	P 199	2-90	3000)	1991	1219
	R: AT,	BE, CH	, DE	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE
JP	06504628	3	Т2	1994	0526		J	P 199	1-50	3210)		1219
US	5376503		Α	1994	1227		U	s 199	2-98	32104	4	1992	1124
US	5585225		A	1996	1217		U	s 199	4-29	8450)	1994	1027
US	5585416		A	1996	1217		U	S 199	5-47	8303	3	1995	0607
US	5587261		A	1996	1224		U	S 199	5-47	385	4	1995	0607
US	5591551		A	1997	0107		U	s 199	5-47	4870)	1995	0607
PRIORITY	Y APPLN.	INFO.:					us 1	990-6	3161	. 0	Α	1990	1220
							EP 1	990-9	0507	7	Α	1989	1120
							WO 1	991-U	IS964	9	W	1991	1219
							US 1	992-9	8210) 4	A3	1992	1124
							US 1	994-2	9845	0	A3	1994	1027

AB The title polymers are prepd. from C4-7 isoolefins and p-alkylstyrenes (A)

with radiation-reactive functional groups, optionally nonreactive groups, at the p-alkyl groups of A. Thus, a 97.5:2.5 mol% isobutylene-p-methylstyrene copolymer (I) was brominated at 40.degree. under light to form a I contg. 0.9 mol% benzylic bromide group, which can be further reacted with Et3N, Et3P, Na di-Et dithiocarbamate, carboxylic acid

(esters), fatty acid (esters), and photoinitiator derivs. A PhMe soln.

of

I-4-hydroxybenzophenone reaction product was formed as a 1-mil film on a steel plate and exposed under 0.24-J/cm2 UV radiation to give a film with qood edge anticorrosion (10 days in 5% aq. NaCl soln.) or coated on a cardboard substrate and irradiated with UV light in a pattern to form sharp lithog. images.

IΤ 24139-57-9DP, .alpha.-Cyanocinnamylidene-acetic acid, reaction products with brominated or chlorinated isobutylene-methylstyrene copolymer

RL: PREP (Preparation)

(rubber, manuf. of, radiation-curable, for anticorrosive coatings or resists)

24139-57-9 CAPLUS RN

2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX CN

ANSWER 18 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:90352 CAPLUS

DOCUMENT NUMBER: 118:90352

TITLE: Aromatic conjugated nonlinear optical material

Takeya, Yutaka INVENTOR(S): PATENT ASSIGNEE(S): Teijin Ltd., Japan

Jpn. Kokai Tokkyo Koho, 9 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	API	PLICATION NO.	DATE
JP 04198924	A2	19920720	JP	1990-325413	19901129
THER SOURCE(S):	MA	RPAT 118:90352			

O

The material comprises a solid soln. of carboxylic acid ΑB

XArY(CH:CH)nCH:C(CN)CO2H (n = 0, 1, 2; Ar = C5-14 arom. group; X, Y = R10,

R2R3N, R4S, CN, NO2, CO2R5, OCOR6, CONR7R8, NR9COR10, R11; R1-11 = C1-8 hydrocarbon residue, H) and an indole carboxylic acid R50(Ind)(CH:CH)mCH:C(CN)CO2H (Ind = indole residue; R50 = R51R52N, R530, R54S, CN, NO2, CO2R55, OCOR56, CONR57R58, NR59COR60, R61; R51-61 = C1-8 hydrocarbon residue; m = 0-2).

IT 24139-57-9D, solid solns. with indolyl carboxylic acids RL: TEM (Technical or engineered material use); USES (Uses) (nonlinear optical material, high second harmonic generation) RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 19 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1993:29821 CAPLUS

DOCUMENT NUMBER:

118:29821

TITLE:

Photographic material containing quick bleachable

dves

INVENTOR(S):

Kawashima, Yasuhiko; Yamauchi, Reiko; Kagawa, Nobuaki

PATENT ASSIGNEE(S):

Konica Co., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 37 pp.

Ι

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

1

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
JE	04116639	A2	19920417	JP 1990-237765	19900907

GΙ

$$R^{17}$$
 $C = CH - (CH = CH)_{m}$
 R^{13}
 R^{11}
 R^{12}
 R^{15}

$$rac{Y^{1}}{CN}$$
 C=CH-(CH=CH) $rac{R^{24}}{M}$ $rac{R^{21}}{R^{22}}$ $rac{R^{24}}{R^{23}}$ II

$$x^2$$
 $c = cH - (cH = cH)_m$ x^3 x^3

AB The title photog. material contains a dispersed fine solid powder of a compd. selected from I, II and III [R1,2 = H, (cyclo)alkyl, alkenyl, aryl,

III

heterocyclyl, acyl, sulfonyl; R1 and R2 may form a 5- or 6-membered ring; R3-5 = H, halo, alkyl, CO2H, alkoxycarbonyl, aryloxycarbonyl, amino, carbamoyl, sulfamoyl, NO2, CN, OH, alkoxy, SH, aryl, alkenyl; X1 = COR8, CONR8R9, CO2R8, SO2R8, SOR8, SO2NR8R9; R8,9 = H, (cyclo)alkyl, aryl, heterocyclyl, alkenyl; m = 0-2; Y1 = CN, CONR8R9, CO2R8, SO2R8, SOR8, SO2NR8R9; X2, Y2 = COR8R9, CO2R8, SO2R8, SOR8, SO2NR8R9].

IT 144807-20-5

RL: USES (Uses)

(bleachable dye, photog. material contg.)

RN 144807-20-5 CAPLUS

CN 1-Propanesulfonamide, N-[2-[[2-[4-cyano-4-(methylsulfonyl)-1,3-butadienyl]phenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 20 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1992:661831 CAPLUS

DOCUMENT NUMBER:

117:261831

TITLE:

Laser recording material using secondary harmonic

generation and recording method

INVENTOR(S):

Takeya, Yutaka Teijin Ltd., Japan

PATENT ASSIGNEE(S): SOURCE:

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04214387	A2	19920805	JP 1990-409867	19901212

OTHER SOURCE(S): MARPAT 117:261831

Claimed are (1) recording medium having supported recording layer of .ltoreq.10 .mu.m thickness comprising a mixt. contg. colloidal super fine particle dispersion surface-treated by p-nitroaniline and a colloidal super fine particle dispersion surface-treated by X(Y)Ar(CH:CH)nCH:C(CN)CO2H (Ar = C5-14 arom. group; X, Y = R10, R2R3N, R4S, nitrile, NO2, CO2R5, OCOR6, CONR7R8, NR9COR10, R11; R1-11 = H, C1-8 hydrocarbyl), (2) recording method comprising irradiating from a heat source on the recording layer and forming solid soln. without symmetry center on the irradiated area, and (3) reading record by detection of secondary harmonic generation from the solid soln. area described in 2 under beam irradn. Thus, an Au colloidal dispersion treated with

CN

NAME)

p-nitroaniline and an Au colloidal dispersion treated with 3-(3,4-dimethoxyphenyl)-2-cyanopropenoic acid were mixed and applied onto a glass support to give the title recording material, which was irradiated with an IR laser to form record. 24139-57-9 ΤТ RL: USES (Uses) (gold colloidal dispersion surface-treated by, for laser recording material) 24139-57-9 CAPLUS RNCN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX CN Ph-CH=CH-CH=C-CO2H ANSWER 21 OF 70 CAPLUS COPYRIGHT 2002 ACS 1992:622718 CAPLUS ACCESSION NUMBER: 117:222718 DOCUMENT NUMBER: TITLE: Nonlinear optical material INVENTOR(S): Takeya, Yutaka Teijin K. K., Japan PATENT ASSIGNEE(S): SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF DOCUMENT TYPE: Patent Japanese LANGUAGE: FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: APPLICATION NO. DATE PATENT NO. KIND DATE JP 04096026 A2 19920327 JP 1990-211637 19900813 The title material consists of a solid soln. from AΒ (R)aQ(CH:CH)bCH:C(CN)COOH (Q = residue of indole or C5-14 arom. compd.; R = amino, alkoxy, alkylthio, CN, NO2, COOR1 or OCOR2 ester, CONR1R2 or N(R1)COR2 amide, hydrocarbon radical, or H, different or same; a = 1 and with indole and arom. residue for Q, resp.; b = 0, 1, or 2) and R3ArR4 (Ar = C6-14 arom. radical, R3 = CN, NO2, RCO, RSO2 (R = C1-4 alkyl or halogen-substituted alkyl); R4 = N(R5)2 (R5 = H or C1-4 hydrocarbon radical), C1-4alkoxy, or C1-4 Alkylthio radical; R3 and R4 are at paraor peri-positions). TΤ 24139-57-9D, 2-Cyano-5-phenyl-2, 4-pentadienoic acid, solid solns. with trifluoromethylaniline 126057-96-3D, solid solns. with aniline derivs. RL: PEP (Physical, engineering or chemical process); PROC (Process) (nonlinear optical materials from) 24139-57-9 CAPLUS RN

2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 22 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:622489 CAPLUS

DOCUMENT NUMBER: 117:222489

TITLE: Preparation of novel nonlinear organic materials

AUTHOR(S): Taketani, Y.; Shouji, A.; Iwata, K.

CORPORATE SOURCE: Tokyo Res. Cent., TEIJIN Ltd., Hino, 191, Japan SOURCE: Nonlinear Opt., Proc. Toyota Conf. Nonlinear Opt.

Mater., 5th (1992), Meeting Date 1991, 249-54.

Editor(s): Miyata, Seizo. North-Holland: Amsterdam,

Neth.

CODEN: 58EMA7

DOCUMENT TYPE: Conference LANGUAGE: English

AB Chiral-amine salts of .alpha.-cyanocinnamic acid derivs. with conjugated double bonds were prepd. and their second harmonic generation (SHG) was investigated. Their hyperpolarizability (.beta.) was calcd. by the PPP

MO

method and indicates that the intramol. charge transfer is influenced by
the substituents at the Ph group as well as the conjugation length. To
break the centrosymmetry, chiral amines were introduced by salt
formation.

By x-ray anal., the cyano groups were found to point toward the same direction playing an important role in SHG.

IT 126058-08-0P 144254-61-5P

RL: PREP (Preparation)

(prepn. and second harmonic generation from)

RN 126058-08-0 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, compd. with (S)-.alpha.methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

CM 2

CRN 2627-86-3 CMF C8 H11 N

Absolute stereochemistry.

RN144254-61-5 CAPLUS

CN2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)-, compd. with (S)-.alpha.-methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-96-3 CMF C13 H11 N O3

2 CM

CRN 2627-86-3 CMF C8 H11 N

Absolute stereochemistry.

IT 24139-57-9P 126057-96-3P

RL: PREP (Preparation)

(prepn. and second harmonic generation from chiral amine salts of) 24139-57-9 CAPLUS

RN

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 23 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1992:540307 CAPLUS

DOCUMENT NUMBER:

117:140307

TITLE:

Organic nonlinear optical material comprising

p-nitroaniline solid solution containing conjugated

aromatic compound Takeya, Yutaka

INVENTOR(S):
PATENT ASSIGNEE(S):

Teijin K. K., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	AP	PLICATION NO.	DATE
JP 04090517	A2	19920324	JP	1990-205162	19900803
THER SOURCE(S):	MA	RPAT 117:140307			

AB The title material comprises a solid soln. of p-nitroaniline and XYAr(CH:CH)aCH:CHCO2Z (Ar = C5-14 arom. group; X, Y = R1O, NR2R3, R4S, nitrile, NO2, CO2R5OCOR6, CONR7R8NR9COR10, R11; R1-11 = H, C1-8 monovalent

hydrocarbon; Z = H, Cl-4 hydrocarbon, C5-14 arom. hydrocarbon, n = 0, 1, 2). The material, e.g., a solid soln. of p-nitroaniline and 3-(4-nitrophenyl)-.alpha. -cyanopropenoic acid, is useful for an optical switch or bistable optical device.

IT 24139-57-9

RL: PRP (Properties)

(solid soln. with nitroaniline, nonlinear optical material)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 24 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1992:416907 CAPLUS

DOCUMENT NUMBER:

117:16907

TITLE:

Aromatic nonlinear optical material containing

carboxylic acid and urea derivative

INVENTOR(S):

Takeya, Yutaka Teijin Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 04036731 A2 19920206 JP 1990-141598 19900601

OTHER SOURCE(S):

MARPAT 117:16907

AB The material consists of an urea deriv. and a carboxylic acid XX1Z(CH:CH)nCH:C(CO2H)CN (n = 0, 1, 2; Z = C5-14 arom. group; X, X1 = R10,

NR2R3, SR4, CN, NO2, CO2R5, OCOR6, CONR7R8, N(R9)COR10, R11; R1-11 = C1-8 hydrocarbon group, H). A material contg.

2-cyano-5-(4-methoxyphenyl)-2,4-

pentadienoic acid and 1,1-dimethylurea showed high 2nd harmonic generation.

IT 24139-57-9

RL: USES (Uses)

(nonlinear optical material contg. urea deriv. and, with high second harmonic generation)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

IT 126057-96-3P

RL: PREP (Preparation)

(prepn. of, nonlinear optical material contg. urea deriv. and, with high second harmonic generation)

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 25 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:173723 CAPLUS

DOCUMENT NUMBER: 116:173723

TITLE: Catalytic synthesis of .alpha.-cyano-.alpha.,.beta.-

unsaturated sulfones in the presence of

organotellurium oxide

AUTHOR(S): Zhong, Qi; Lu, Yongjun; Liu, Changqing; Tao, Weiguo;

Zou, Yongjun

CORPORATE SOURCE: Chem. Dep., Yangzhou Teach. Coll., Yangzhou, 225002,

Peop. Rep. China

SOURCE: Chinese Chemical Letters (1991), 2(9), 683-4

CODEN: CCLEE7; ISSN: 1001-8417

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 116:173723

AB Condensation of PhSO2CH2CN (I) with RC6H4CHO (R = H, 4-NO2, 3-NO2, 4-Cl, 4-Br, 3-Cl, 4-Me, 4-MeO) in MeCN in the presence of bis(p-methoxyphenyl)telluroxide gave (E)-RC6H4CH:C(CN)SO2Ph in 90-99% yields.

Similarly, condensation of I with R1C6H4CH: CHCHO (R1 = H, 3-NO2, 4-C1, 4-MeO) gave (E,E)-R1C6H4CH: CHCH: C(CN) SO2Ph in 96-99% yields.

IT 140138-83-6P 140138-84-7P 140138-85-8P

140138-86-9P

RN 140138-83-6 CAPLUS

CN 2,4-Pentadienenitrile, 5-(3-nitrophenyl)-2-(phenylsulfonyl)-, (E,E)-(9CI)

(CA INDEX NAME)

Double bond geometry as shown.

RN 140138-84-7 CAPLUS

CN 2,4-Pentadienenitrile, 5-(4-chlorophenyl)-2-(phenylsulfonyl)-, (E,E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 140138-85-8 CAPLUS

CN 2,4-Pentadienenitrile, 5-phenyl-2-(phenylsulfonyl)-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

$$\begin{array}{c|c} E & O & O \\ \hline Ph & E & S \\ \hline CN & \end{array}$$

RN 140138-86-9 CAPLUS

CN 2,4-Pentadienenitrile, 5-(4-methoxyphenyl)-2-(phenylsulfonyl)-, (E,E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 26 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1992:162099 CAPLUS

DOCUMENT NUMBER:

116:162099

TITLE:

Aromatic nonlinear optical material containing solid

solution of carboxylic acid and cyanoamine

INVENTOR(S):

Takeya, Yutaka

PATENT ASSIGNEE(S):

Teijin Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO. DATE

JP 03259126 A2 19911119 JP 1990-56415 19900309

OTHER SOURCE(S): MARPAT 116:162099

The material consists of a solid soln. of carboxylic acid XX1Z(CH:CH) nCH:C(CO2H) CN [n = 0-2; Z = C5-14 arom. group; X, X1 = R10, NR2R3, SR4, CN, NO2, CO2R5, OCOR6, CONR7R8, N(R9)COR10, R11; R1-11 = C1-8 hydrocarbon group, H] and arom. cyanoamine NH2Z1(Z2m)CN(Z1 = C6-12 arom.group; Z2 = halo, H; m = 1-8). A material contg. 2-cyano-5-(4methoxyphenyl)-2,4-pentadienonic acid and p-cyanoaniline showed high 2nd harmonic generation.

IT 24139-57-9

RL: USES (Uses)

(nonlinear optical material contg. cyanoamine and, with high second harmonic generation)

24139-57-9 CAPLUS RN

2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX CN NAME)

IT 126057-96-3P

RL: PREP (Preparation)

(prepn. of, nonlinear optical material contg. cyanoamine and, with

high

second harmonic generation)

RN126057-96-3 CAPLUS

2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX CN NAME)

$$ch = ch - ch = cn$$

MeO

ANSWER 27 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:139697 CAPLUS

DOCUMENT NUMBER: 116:139697

TITLE: Aromatic nonlinear optical material containing

nitroaniline and cyanocarboxylic acid

INVENTOR(S): Takeya, Yutaka

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 03230127 A2 19911014 JP 1990-24442 19900205

OTHER SOURCE(S): MARPAT 116:139697

The title material comprises a solid soln. of p-nitroaniline and XYAr(CH:CH)nCH:C(CN)CO2H (Ar = C5-14 arom. group; X, Y = R10, NR2R3, SR4, cyano, NO2, CO2R5, OCOR6, CONR7R8, NR9COR10, R11; R1-11 = H, C1-8 hydrocarbon). The solid soln., e.g., a mixt. of 2-cyano-5-(4-methoxyphenyl)-2,4-pentadienoic acid and p-nitroaniline, showed strong second harmonic generation.

IT 24139-57-9

RL: TEM (Technical or engineered material use); USES (Uses) (nonlinear optical material, with strong second harmonic generation)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

IT 126057-96-3P

RL: PREP (Preparation)

(prepn. of, for nonlinear optical material, with strong second

harmonic

generation)

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

$$CH = CH - CH = C - CO_2H$$

MeO

L4 ANSWER 28 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:116750 CAPLUS

DOCUMENT NUMBER: 116:116750

TITLE: Second harmonic-generating nonliner optical material

INVENTOR(S): Takeya, Yutaka
PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03126926	A2	19910530	JP 1989-265106	19891013

GΙ

AB The title material consists of a compd. Q(CH:CH)n(CH:C(CN))mZ (Q = ROA, R1A, I; R = C1-8 hydrocarbyl; Z = C5-14 arom.; R1, M = NR3R4, OR5, SR6, CN, CO2R7, OCOR8, CON(R7)R10, N(R11)COR12, R13, H; R3-13 = C1-8 hydrocarbyl; X = S, O, NR2; R2 = H, C1-8 hydrocarbyl; 1 = 0-3; n = 0-2; m = 0, 1; when m = 0, Z = CHO; when m = 1, Z = CO2H, CO2G; G = C16-24 hydrocarbyl).

IT 139269-39-9

RL: TEM (Technical or engineered material use); USES (Uses) (optical nonlinear material)

RN 139269-39-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)

$$CH = CH - CH = C - CO_2H$$

OMe

L4 ANSWER 29 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1992:107441 CAPLUS

DOCUMENT NUMBER: 116:107441

TITLE: Photocurable polymers for use in nonlinear optics INVENTOR(S): Le Bamy, Pierre; Broussoux, Dominique; Coqueret,

on (b). He banky, fielie, bloassouk, b

Xavier

PATENT ASSIGNEE(S): Thomson CSF S. A., Fr. SOURCE: Fr. Demande, 26 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2659340	A1	19910913	FR 1990-2807	19900306
FR 2659340	в1	19930507		

AB The title polymers, with low glass temps. and practical 2nd-order

susceptibilities, are siloxanes bearing pendent photocurable groups and, optionally, mesogenic groups. Stirring 177 mg Me hydrogen siloxane, 102 mg 4-nitro-4'-[ethyl[2-(6-heptenoyloxy)ethyl]amino]azobenzene, 390 mg PhCH:CHCH:C(CN)CO2CH2Si(Me)2CH:CH2, and 400 mg 4'-cyano-4-biphenylyl 6-heptenoate with a Pt catalyst in PhMe at 110.degree. for 44 h gave a photocurable polymer with glass temp. 6.degree..

ΙT 24139-57-9P

RL: PREP (Preparation)

(prepn. of, and reaction with (chloromethyl)dimethylvinylsilane)

24139-57-9 CAPLUS RN

2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX CN NAME)

CN Ph-CH=CH-CH=C-CO2H

T.4 ANSWER 30 OF 70 CAPLUS COPYRIGHT 2002 ACS

1991:536937 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 115:136937

TITLE: Some aspects of the reactivity of photo-dimerizable

esters grafted onto silicone main chain polymers

AUTHOR(S): Coqueret, Xavier; El Achari, Ahmida; Hajaiej, Adel;

Lablache-Combier, Alain; Loucheux, Claude;

Randrianarisoa, Lili

CORPORATE SOURCE: Lab. Chim. Macromol., Univ. Sci. Tech. Lille Flandres

Artois, Villeneuve d'Ascq, F-59655, Fr.

SOURCE: Makromolekulare Chemie (1991), 192(7), 1517-34

CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal LANGUAGE: English

AB The reactivity under UV light and at room temp. of 2 series of photo-crosslinkable silicone polymers contq. pendant cinnamic or .alpha.-cyano-.beta.-styrylacrylic (CSA) esters was examd. by means of UV spectroscopy. Polymers with trans-cinnamic pendant groups underwent a fast photo-isomerization during the first moments of 280-nm irradn., preceding the dimerization process which takes place with a slower rate. The mobility of the reactive cinnamic chromophores attached to the highly flexible silicone main chain led to a collision-controlled process contrasting with the behavior of the polymers contg. more polar CSA esters. In this case, a clean dimerization with high reversibility suggested a matrix-controlled process. This was supported by kinetic

data

indicating a levelled reactivity for several polymers contg. different amts. of CSA esters.

IT 24139-57-9DP, esters with allyl glycidyl ether-siloxane reaction products

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and photodimerization of, kinetics of)

24139-57-9 CAPLUS RN

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 31 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:418282 CAPLUS

DOCUMENT NUMBER: 115:18282

TITLE: Organic nonlinear optical material

INVENTOR(S): Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AB	JP 02254425 The title nonlin reacting an .alphond(s) with an	ear op hacy optica	tical material anocarboxylic a lly active amin	JP 1989-74875 is a salt or amidecid contg. a conjue. The material l	e obtained by ugated double has improved 2nd
IT	harmonic generat memories, and bi 126058-08-0 1260	stable	devices.	useful in optica	l switches,
	126058-46-6 1260 134250-60-5 1343 RL: TEM (Technic	09-71-	0	rial use); USES (Uses)
	(optical nonl 126058-08-0 CAP	inear : LUS	material)		
CN	2,4-Pentadienoic methylbenzenemet			yl-, compd. with (CA INDEX NAME)	(S)alpha

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

CM 2

CRN 2627-86-3 CMF C8 H11 N

Absolute stereochemistry.

Page 59

RN 126058-20-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with .alpha.-methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

CM 2

CRN 618-36-0 CMF C8 H11 N

$$\begin{array}{c} \text{Ph} \\ | \\ \text{H}_2\text{N--CH--Me} \end{array}$$

RN 126058-21-7 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with .alpha.-methyl-1-naphthalenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$\begin{array}{c} \text{CM} \\ \text{CH} \end{array}$$
 $\begin{array}{c} \text{CN} \\ \text{CH} \end{array}$ $\begin{array}{c} \text{CH} \end{array}$

CM 2

CRN 42882-31-5 CMF C12 H13 N

RN 126058-46-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with (R)-2-amino-1-butanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

CM 2

CRN 5856-63-3 CMF C4 H11 N O

Absolute stereochemistry. Rotation (-).

RN 126058-61-5 CAPLUS

CN L-Valine, methyl ester, 2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

$$\begin{array}{c} CN \\ | \\ Ph-CH-CH-CH-C-CO_2H \end{array}$$

CM 2

CRN 4070-48-8 CMF C6 H13 N O2

Absolute stereochemistry. Rotation (+).

RN 126058-70-6 CAPLUS

CN L-Arginine, N2-benzoyl-, ethyl ester,

mono[2-cyano-5-(3,4-dimethoxyphenyl)-

2,4-pentadienoate] (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$\begin{array}{c} \text{CM} \\ \text{CH} \end{array}$$
 $\begin{array}{c} \text{CN} \\ \text{CH} \end{array}$ $\begin{array}{c} \text{CH} \\ \text{CH} \end{array}$

CM 2

CRN 971-21-1

CMF C15 H22 N4 O3

Absolute stereochemistry.

RN 134250-60-5 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with (R)-1-amino-2-propanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$CH = CH - CH = C - CO_2H$$

CM 2

CRN 2799-16-8 CMF C3 H9 N O

Absolute stereochemistry. Rotation (-).

RN 134309-71-0 CAPLUS

CN Benzeneacetic acid, .alpha.-amino-, methyl ester, (R)-, 2-cyano-5-(3,4-dimethoxyphenyl)-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

CM2

CRN 24461-61-8 CMF C9 H11 N O2

Absolute stereochemistry. Rotation (-).

IT24139-57-9P 126057-96-3P 126057-98-5P

RL: PREP (Preparation)

(prepn. of) 24139-57-9 CAPLUS RN

CN2,4-Pentadienoic acid, 2-cyano-5-phenyl~ (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

$$CH = CH - CH = C - CO_2H$$

MeO

RN126057-98-5 CAPLUS

2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)- (9CI) (CA INDEX CNNAME)

L4 ANSWER 32 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:237358 CAPLUS

DOCUMENT NUMBER: 114:237358

TITLE: Nonlinear optical materials containing amide groups

INVENTOR(S): Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
лр 02171731	7.0	10000703		TD 1000 20000	10001006
-	A2	19900703		JP 1988-326099	19881226
US 5196147	A	19930323		US 1989-329746	19890328
PRIORITY APPLN. INFO.	:		JP	1988-72080	19880328
			JP	1988-118327	19880517
			JP	1988-130090	19880530
			JP	1988-223592	19880908
			JP	1988-223593	19880908
			JP	1988-226491	19880912
			JΡ	1988-227428	19880913
			JP	1988-286902	19881115
			JP	1988-286903	19881115
			JP	1988-288978	19881117
			JP	1988-288979	19881117
			JP	1988-326099	19881226

OTHER SOURCE(S): MARPAT 114:237358

GΙ

AB Nonlinear optical materials R1A(CH:CH)nCH:C(CN)COZ, where A = C5-14 arom. moiety; R1 = H, C1-8 hydrocarbon, NR2R3, OR2, SR2, nitrile, NO2, CO2R2, OCOR2, CONR2R3, NR2COR3; R2, R3 = H, C1-8 hydrocarbons; Z = NHCR4R5R6, NHCH2CR4R5R6, I, .alpha.-amino acid derivs.; R4-6 = H, C1-5 alkyl, Ph, naphthyl, OH, CH2OH, CO2R2, CNR2R3; m = 3-4; and n = 0, 1, 2 are claimed. The claimed materials are asym. mols. having high 2nd harmonic generation

characteristics and mol. polarizability.

IT 24139-57-9 126057-96-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(acid chlorination of, for nonlinear optical materials)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 33 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:193378 CAPLUS

DOCUMENT NUMBER: 114:193378

TITLE: Aromatic acid amine salt multilayer film with

structural periodicity

INVENTOR(S): Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02193954	A2	19900731	JP 1989-11861	19890123

OTHER SOURCE(S): MARPAT 114:193378

AB The multilayer film, with periodical structure in the thickness orientation, comprises C10-22 linear alkylamine salt of arom. conjugated acid R(CH:CH)lCH:C(CN)CO2H [l = 0,1,2; R = (substituted) arom. residue]. Me cyanate and p-dimethylaminocinnamoyl aldehyde were treated to give 5-(4-dimethylaminophenyl)-2-cyano-2,4-pentadienoic acid (I). The soln.

of
I and a soln. of C18H37COCHNHCOC6H4C18H37CO(CH2)2O(CH2)4NMe3Br were repeatedly contacted to give the multilayer film useful for elec. materials, waveguides, optoelec. devices, etc.

IT 133398-99-9

RL: PRP (Properties)
 (multilayer film from, with periodic structure in thickness
 orientation)

RN 133398-99-9 CAPLUS

CN 1-Butanaminium, 4-[4-[[[4-(dodecyloxy)-1-[(dodecyloxy)carbonyl]-4-oxobutyl]amino]carbonyl]phenoxy]-N,N,N-trimethyl-, bromide, (S)-, mono(2-cyano-5-phenyl-2,4-pentadienoate) (9CI) (CA INDEX NAME)

CM 1

CRN 75082-74-5 CMF C43 H77 N2 O6 . Br

Absolute stereochemistry.

Me
$$^{(CH_2)}_{4}$$
 $^{(CH_2)}_{4}$ $^{(CH_2)}_{11}$ $^{(CH_2)}_{11}$ $^{(CH_2)}_{11}$ $^{(CH_2)}_{11}$

● Br-

CM 2

CRN 24139-57-9 CMF C12 H9 N O2

$$\begin{array}{c} \texttt{CN} \\ | \\ \texttt{Ph-CH-CH-CH-C-CO_{2}H} \end{array}$$

IT 24139-57-9P

RL: PREP (Preparation) (prepn. of, multilayer film from with amines and)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 34 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1991:91599 CAPLUS

DOCUMENT NUMBER:

114:91599

TITLE:

Nonlinear optical material using conjugated amine

salt

INVENTOR(S):

Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

Teijin Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese 10

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PATENT NO. JP 02135427 US 5196147 PRIORITY APPLN. INFO.	A2 A	DATE 19900524 19930323	JP JP JP JP JP JP JP	APPLICATION NO	DATE 19881117 19890328 19880328 19880517 19880530 19880908 19880908 19880912 19880913 19881115 19881117
				1988-326099	19881226

OTHER SOURCE(S): MARPAT 114:91599

AB The material comprises a salt of carboxylic acid XZY(CH:CH)nCH:C(CN)CO2H (n = 0, 1, 2; Z = C5-14 arom. group; X, Y = R10, R2R3N, R4S, NO2; R1-4 = H, C1-8 hydrocarbon group) and optically active amine of 1-phenylethylamine, 1-(.alpha.-naphthyl)ethylamine, 1-phenyl-2-methylethylamine, 1-phenyl-2-aminopropane, and/or brucine. An amine salt of R-(-)-1-phenylethylamine and 3-(3,4-dimethoxyphenyl)-2-cyanopropenoic acid showed high second harmonic generation.

IT 126058-20-6 126058-21-7

RL: TEM (Technical or engineered material use); USES (Uses) (nonlinear optical material, with high second harmonic generation)

RN 126058-20-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with .alpha.-methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$CH = CH - CH = C - CO_2H$$

CM2

CRN 618-36-0 CMF C8 H11 N

RN126058-21-7 CAPLUS CN

2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with alpha.-methyl-1-naphthalenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$\begin{array}{c|c} \text{OMe} \\ \text{CH} & \text{CH} - \text{CH} - \text{CO}_2\text{H} \end{array}$$

2 CM

CRN 42882-31-5 C12 H13 N CMF

ΙT 126057-98-5P

RL: PREP (Preparation)

(prepn. of, nonlinear optical amine salt of)

RN 126057-98-5 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 35 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:49360 CAPLUS

DOCUMENT NUMBER: 114:49360

TITLE: Ultraviolet radiation absorbing compositions

INVENTOR(S): Phalangas, Charalambos J.; Restaino, Alfred J.; Yang,

Lau S.

PATENT ASSIGNEE(S): ICI Americas, Inc., USA

SOURCE: U.S., 9 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4950467	A	19900821	US 1986-930523	19861114

OTHER SOURCE(S): MARPAT 114:49360

AB Sunscreen compns. are described, which contain 5-phenylpentadienoate esters which act as UV filters when incorporated in a carrier in amts. ranging from 0.1-50% by wt. The Markush structures of 5-phenylpentadienoate esters are described. The compns. of 16 sunscreens are given and 21 esters prepd.

IT 24139-57-9P, 2-Cyano-5-phenyl-2,4-pentadienoic acid

RL: PREP (Preparation)

(prepn. of, as intermediate for sunscreen phenylpentadienoates)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

IT 24139-57-9, 2-Cyano-5-phenyl-2, 4-pentadienoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in prepn. of sunscreen phenylpentadienoate)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX

SOURCE:

to

NAME)

CN | Ph-CH=CH-CH=C-CO2H

L4 ANSWER 36 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:592459 CAPLUS

DOCUMENT NUMBER: 113:192459

TITLE: Synthesis and properties of photoreactive

polysiloxanes containing pendant functional groups AUTHOR(S): Coqueret, Xavier; Hajaier, Adel; Lablache-Combier,

Alain; Loucheux, Claude; Mercier, Regis; Pouliquen,

Lydie; Randrianarisoa-Ramanantsoa, Lili

CORPORATE SOURCE: Lab. Chim. Org. Macromol., Univ. Sci. Tech. Lille

Flandres-Artois, Villeneuve d'Ascq, 59655, Fr. Pure and Applied Chemistry (1990), 62(8), 1603-14

CODEN: PACHAS; ISSN: 0033-4545

DOCUMENT TYPE: Journal LANGUAGE: English

AB Functional polysiloxanes contg. photoreactive pendant groups were prepd. by multistep modification of silicone copolymers contg. methylhydrosiloxane units. One method based on Pt-catalyzed hydrosilylation of vinylsilyl-terminated photoreactive esters allowed prepn. of liq. silicone polymers contg. photodimerizable esters. Another method based on the esterification of pendant epoxy groups previously grafted on the silicone main chain was a general and very powerful alternative route for prepn. of photo-reactive polysiloxanes. The method was applied to synthesize polysiloxanes contg. various functional side groups such as dimerizable esters, arom. carbonyl compds. or dyes which possess properties of photochem. interest. The reactivity, the ability

be photosensitized as well as some practical properties of different photo-crosslinkable polysiloxanes modified either by cinnamic, furacrylic or .alpha.-cyano .beta.-styrylacrylic ester groups were examd. A kinetic investigation of the reactivity of the polysiloxane-bound dimerizable chromophores indicated the effect of the silicone matrix in comparison with more classical hydrocarbon photopolymers.

IT 24139-57-9DP, reaction products with epoxy siloxanes RL: SPN (Synthetic preparation); PREP (Preparation)

(photosensitive, prepn. and crosslinking of, mechanism and kinetics

of) RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

CN | Ph- CH- CH- CH- C- CO₂H L4 ANSWER 37 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:506081 CAPLUS

DOCUMENT NUMBER: 113:106081

TITLE: Nonlinear optical materials based on optically active

amino acid salts

INVENTOR(S): Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
JP 01300234 US 5196147 PRIORITY APPLN. INFO.	A2 A	19891204 19930323	JP JP JP JP JP JP JP	JP 1988-130090 US 1989-329746 1988-72080 1988-118327 1988-130090 1988-223592 1988-223593 1988-226491 1988-227428 1988-286902 1988-286903 1988-288978 1988-288979 1988-326099	19880530 19890328 19880328 19880517 19880530 19880908 19880908 19880912 19880913 19881115 19881117 19881117

OTHER SOURCE(S): MARPAT 113:106081

The title materials comprise R1A(CH:CH)nCH:C(CN)CO2H (n = 0, 1, 2; A = C5-14 arom. group; R1 = R2NR3, R4O, R5S, CN, NO2, CO2R6, OCOR7, CONR8R9, NR1OCOR11; R2-12 = C1-8 hydrocarbon residue, H). Me cyanoacetate and p-dimethylaminocinnamoyl aldehyde were treated to give 2-cyano-3-(4-dimethylaminocinnamoyl)-2-propenoic acid, which was treated with L-phenylalanine HCl salt to give a nonlinear optical crystal exhibiting strong 2nd harmonic generation.

IT 24139-57-9

RL: PRP (Properties)

(neutralization with amines of, in nonlinear optical material prepn.)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $\begin{array}{c} CN \\ | \\ Ph-CH \longrightarrow CH-CH \longrightarrow C-CO_2H \end{array}$

L4 ANSWER 38 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:440075 CAPLUS

DOCUMENT NUMBER: 113:40075

TITLE: New method of preparing 2-cyano-3-methyl-2,4-

pentadienoic acid derivatives

AUTHOR(S): Avetisyan, A. A.; Akhnazaryan, A. A.; Melikyan, G. S.

CORPORATE SOURCE: Erevan. Gos. Univ., Yerevan, USSR

SOURCE: Armyanskii Khimicheskii Zhurnal (1989), 42(10),

659-60

CODEN: AYKZAN; ISSN: 0515-9628

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 113:40075

AB Condensation reaction of RCHO (R = Ph, 3-O2NC6H4, 4-ClC6H4, 2-furyl) with Me2C:C(CN)CO2Et in 10% aq. NaOH gave 40-75% RCH:CHCMe:C(CN)CO2H (I); in 10% alc. NaOH, 81% I (R = Ph) was obtained.

IT 54681-21-9P 128039-69-0P 128039-70-3P

RN 54681-21-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3-methyl-5-phenyl- (7CI, 9CI) (CA INDEX NAME)

RN 128039-69-0 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3-methyl-5-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

RN 128039-70-3 CAPLUS

CN 2,4-Pentadienoic acid, 5-(4-chlorophenyl)-2-cyano-3-methyl- (9CI) (CA INDEX NAME)

$$CH = CH - C = C - CO_2H$$

L4 ANSWER 39 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:216448 CAPLUS

DOCUMENT NUMBER: 112:216448

TITLE: (Aryl)alkylidenecyanoacetic acid salts with chiral

amines as nonlinear optical materials having

increased

second harmonic generating ability and stability to

laser light

INVENTOR(S):

Taketani, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PATENT ASSIGNEE(S):

Teijin Ltd., Japan

SOURCE:

Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 335641 EP 335641	A2 A3	19891004 19910313	EP 1989-303013	19890328
EP 335641 R: DE, FR,	B1 GB	19940105		
JP 01245230	A2	19890929	JP 1988-72080	19880328
JP 01288831	A2	19891121	JP 1988-118327	19880517
JP 02138163	A2	19900528	JP 1988-288978	19881117
PRIORITY APPLN. INFO	.:		JP 1988-72080	19880328
			JP 1988-118327	19880517
			JP 1988-288978	19881117

OTHER SOURCE(S): MARPAT 112:216448

AB A(CR1:CH)nCH:C(CN)CO2H.B [I; R1 = H, Me; B = optically active amine; A = H, alkyl, (substituted) (hetero)aryl; n = 0-2], useful as nonlinear optical materials having increased second harmonic generating ability and stability to laser light, were prepd. Thus, NCCH2CO2Me and p-dimethylaminocinnamaldehyde were stirred 40 h in aq. NaOH at 85.degree. followed by acidification to give 2-cyano-5-(4-dimethylaminophenyl)-2,4-pentadienoic acid. The latter in THF was treated with L-1-phenylethylamine to ppt. the 1:1 salt. The salt exhibited a second harmonic .apprx.3.times. that of m-nitroaniline upon exposure to 1.06.mu. laser light.

IT 24139-57-9P 126057-96-3P 126057-98-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and salification of, with chiral amine, in prepn. of nonlinear optical material)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 126057-96-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 126057-98-5 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)- (9CI) (CA INDEX NAME)

IT 126058-08-0P 126058-20-6P 126058-21-7P

126058-46-6P 126058-47-7P 126058-61-5P 126058-69-3P 126058-70-6P 126076-75-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as nonlinear optical material)

RN 126058-08-0 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, compd. with (S)-.alpha.-methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

$$\begin{array}{c} CN \\ | \\ Ph-CH \longrightarrow CH-CH \longrightarrow C-CO_2H \end{array}$$

CM 2

CRN 2627-86-3 CMF C8 H11 N

Absolute stereochemistry.

RN 126058-20-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with .alpha.-methylbenzenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

CM 2

CRN 618-36-0 CMF C8 H11 N

$$\begin{array}{c} \text{Ph} \\ | \\ \text{H}_2\text{N--CH--Me} \end{array}$$

RN 126058-21-7 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with .alpha.-methyl-1-naphthalenemethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

CM 2

CRN 42882-31-5 CMF C12 H13 N

```
Page 76
```

RN 126058-46-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with (R)-2-amino-1-butanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

MeO
$$\begin{array}{c} \text{CN} \\ \text{CH} \end{array}$$
 $\begin{array}{c} \text{CN} \\ \text{C} \end{array}$

CM 2

CRN 5856-63-3 CMF C4 H11 N O

Absolute stereochemistry. Rotation (-).

RN 126058-47-7 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(3,4-dimethoxyphenyl)-, compd. with (R)-2-amino-1-propanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-98-5 CMF C14 H13 N O4

CM 2

CRN 35320-23-1 CMF C3 H9 N O

Absolute stereochemistry. Rotation (-).

RN 126058-61-5 CAPLUS
CN L-Valine, methyl ester, 2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

$$Ph-CH=CH-CH=C-CO_2H$$

CM 2

CRN 4070-48-8 CMF C6 H13 N O2

Absolute stereochemistry. Rotation (+).

RN 126058-69-3 CAPLUS
CN Benzeneacetic acid, .alpha.-amino-, 2-cyano-5-(3,4-dimethoxyphenyl)-2,4pentadienoate (9CI) (CA INDEX NAME)

1 CM

CRN 126057-98-5 CMF C14 H13 N O4

CM

CRN 875-74-1 CMF C8 H9 N O2

Absolute stereochemistry. Rotation (-).

RN

126058-70-6 CAPLUS L-Arginine, N2-benzoyl-, ethyl ester, mono[2-cyano-5-(3,4-dimethoxyphenyl)-

2,4-pentadienoate] (9CI) (CA INDEX NAME)

CM1

CRN 126057-98-5 CMF C14 H13 N O4

CM2

CRN 971-21-1

CMF C15 H22 N4 O3

Absolute stereochemistry.

RN 126076-75-3 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)-, compd. with (S)-2-amino-1-butanol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 126057-96-3 CMF C13 H11 N O3

CM 2

CRN 5856-62-2 CMF C4 H11 N O

Absolute stereochemistry. Rotation (+).

L4 ANSWER 40 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1989:193550 CAPLUS

DOCUMENT NUMBER:

110:193550

TITLE:

Functionalization of siloxanes by esterification of pendant epoxy groups: crosslinkable liquid polymers

containing photodimerizable ester units

AUTHOR(S): Hajaiei, Adel: Converet, Vavier

Hajaiej, Adel; Coqueret, Xavier; Lablache-Combier,

Alain; Loucheux, Claude

CORPORATE SOURCE:

Lab. Chim. Org. Macromol., Univ. Sci. Tech. Lille,

Villeneuve d'Ascq, F-59655, Fr.

SOURCE:

Makromolekulare Chemie (1989), 190(2), 327-40

CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal LANGUAGE: English

AB Photo-dimerizable carboxylic acids were bonded onto linear silicone copolymers by amine-catalyzed esterification of pendant epoxypropyl groups. Liq., photo-crosslinkable polymers were obtained after acetylation of the hydroxy-ester groups resulting from the addn. of functional carboxylic acids, and no unwanted side-reaction was detected. The practical sensitivity of photo-reactive polysiloxanes of various av. mol. wts. contg. 5-17 mol% of sensitive units, was measured by photoresist

type insolubilization tests. The acetylation reaction had little or no influence on the dimerization process of 2-cyano-5-phenyl-2,4-pentadienoic

derivs., but increased the rate of disappearance of trans-cinnamic groups submitted to UV light irradn.

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

 $\begin{array}{c} CN \\ | \\ CH-CH-CH-CO_2H \end{array}$

L4 ANSWER 41 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1987:25823 CAPLUS

DOCUMENT NUMBER: 106:25823

TITLE: Waterless lithographic plate blank

INVENTOR(S): Ichijo, Tsutomu; Taniguchi, Masaharu; Mori, Yoichi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

GI

AB The claimed waterless lithog. plate blank plate is composed of (1) a support, (2) a photocuring type adhesive layer contg. monomer, oligomer or

a polymer having .gtoreq.1 group selected from R(CH:CR1)nCH:CR2CO, I, C6H4CH:CHR, II, III, IV, V, and 9-anthryl, where R = C5-20 aryl, heterocyclyl; R1 = H, C1-10 alkyl; R2 = R1, aryl, alkanoyl, CN; R3 = aryl; R4 = H, halo, C1-10 alkyl, CN), and (3) a layer made of a crosslinked silicone rubber prepd. by addn. reaction of a Si-H bond-contg. compd.

with

a C-C double bond-contg. compd. The silicone rubber should have C2-110 alkylene or alkenylene as the crosslinking group. Thus, an Al support

was

coated with a soln. of a ester of 1,3-bis(N,N-diglycidylaminomethyl)cyclohexane with .alpha.-cyano-.beta.-styrylacrylic acid, and coated with a compn. contg. .alpha.,.omega.-divinyldimethylsiloxane, trimethylsilyl-terminated Me siloxane and chloroplatinic acid to give a waterless lithog. plate blank. The blank was imagewise exposed and developed to give a high-quality waterless lithog. plate.

IT 24139-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (esterification of, with bis(diglycidylaminomethyl)cyclohexane,
 photocurable adhesive from)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CN} \\ | \\ \text{Ph-CH-CH-CH-CH-C-CO}_2\text{H} \end{array}$$

IT 63278-64-8

RL: USES (Uses)

(photocurable adhesive contg., for photosensitive laminates for waterless lithog. plates)

RN 63278-64-8 CAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane,

2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

```
Page 82
```

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

CM 2

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) \times

CCI PMS

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

CM 4

CRN 80-05-7 CMF C15 H16 O2

IT 106049-53-0

RL: USES (Uses)

(photocurable adhesive, for photosensitive laminates for waterless lithog. plates)

RN 106049-53-0 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, diester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

$$\begin{array}{c} CN \\ | \\ Ph-CH-CH-CH-C-CO_2H \end{array}$$

CM 2

CRN 56-81-5 CMF C3 H8 O3

OH ${\tt HO-CH_2-CH-CH_2-OH}$

ANSWER 42 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1984:611908 CAPLUS

DOCUMENT NUMBER: 101:211908

TITLE: Polyesters sensitive to visual light

INVENTOR(S): Iwata, Kaoru; Hagiwara, Tsuneo; Matsuzawa, Hiroshi

PATENT ASSIGNEE(S): Teijin Ltd. , Japan Ger. Offen., 49 pp. SOURCE:

CODEN: GWXXBX

DOCUMENT TYPE:

Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.		DATE	APPLICATION NO.	DATE	
	DE 3320393		19840823		19830606	
	JP 59155417	A2	19840904	JP 1983-27716	19830223	
	JP 03063741	B4	19911002			
	US 4495343	Α	19850122	US 1983-501395	19830606	
	DE 3348079			DE 1983-3348079		
PRIO	RITY APPLN. INFO.	:		1983-27716		
AB	Polyesters curab	le by	visible light c	ontain .gtoreq.10	mol%	
	C6H4[CH:CHCH:C(C	N) CO2H]2-based units	and have reduced	viscosity (RV)	
	.gtoreq.0.2 dL/g	. Thu	s, stirring p-C	6H4[CH:CHCH:C(CN)	CO2Bu]2 43.2,	
	triethylene glycol 30.0, Ti(OBu)4 0.034, and hydroquinone 0.20 part for					
40					-	
	min at 200.degree., 30 min at 200.degree./300 mm, 30 min at					
200.degree./20						
	with RV 0.92 dL/acid-neopentyl gdL/g) 50, and CH 60.degree., and	g. As lycol- 2Cl2 10 exposed	soln. of I 50, terephthalic ac 000 parts was c d to an Ar lase	1:1:1:1 ethylene	00 ms, giving a	
${ t IT}$	93196-71-5					

RL: USES (Uses) (photocurable, by visible light) RN 93196-71-5 CAPLUS

L4 ANSWER 43 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1984:211003 CAPLUS

DOCUMENT NUMBER: 100:211003

TITLE: Preparation of self-sensitizing photopolymer

PATENT ASSIGNEE(S): Nishikubo, Tadatomi, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
АВ	The title photop haloalkyl group	olymer and a	photosensiti	JP 1982-46567 from a copolymer co zer unit in the side ch is reactive with	ntg. both a chain and a compd.
grou	p.				

The polymers have excellent properties with respect to photocuring, reproducibility, and prevention of pollution in the working environment. Thus, chloromethylstyrene 43.49, 2-methacryloyloxy-N-(4-nitro-1-naphthyl)acetamide 3.96, and AIBN 0.477 g were mixed to give 28.74 g copolymer (yield 50.03%). The copolymer 3.815, Bu4NBr 0.665, and K cinnamate 4.652 g were mixed to give 4.91 g photopolymer (I) (yield 78.3%). I coated on a Cu plate showed excellent light sensitivity.

IT 87133-49-1D, reaction products with chloromethylstyrene polymers
RL: USES (Uses)

(photopolymers, self-sensitizing)

RN 87133-49-1 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, potassium salt (9CI) (CA INDEX NAME)

K

L4 ANSWER 44 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1984:7596 CAPLUS

DOCUMENT NUMBER: 100:7596

TITLE: Study of photopolymers. 18. Synthesis and

photochemical reaction of novel polymers with pendant

photosensitive and photosensitizing groups

AUTHOR(S): Iizawa, Takashi; Nishikubo, Tadatomi; Takahashi,

Eiiji; Hasegawa, Masaki

CORPORATE SOURCE: Fac. Eng., Kanagawa Univ., Yokohama, 221, Japan SOURCE: Makromolekulare Chemie (1983), 184(11), 2297-312

CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal LANGUAGE: English

AB Self-sensitized photosensitive polymers with pendant photosensitive and photosensitizing groups were prepd. by reaction of polystyrene contg. pendant chloromethyl and photosensitizing groups, with the K salts of photosensitive compds. such as cinnamic acid, crotonic acid, or 2-cyano-3-(.alpha.-styryl)acrylic acid in DMF using Bu4NBr as phase transfer catalyst. The photochem. reactivity and the practical photosensitivity of the resulting polymers were measured by IR spectrometry and by the gray-scale method, resp. Pendant 4-nitro-l-naphthyloxy and 4-nitrophenoxy groups in the polymers showed

the

highest photosensitizing activity for pendant cinnamoyl groups. The photochem. reactivity and the sensitivity of these polymers are affected by the content of photosensitizing units in the polymer skeleton; the glass transition temp. of the polymers, however, is not influenced. Pendant 2-benzoylbenzoyl groups act as excellent photosensitizers for pendant crotonoyl groups, however, the photochem. reactivity of this polymer was lower than that of the polymer with pendant cinnamoyl and suitable photosensitizing groups. Pendant 2-cyano-3-(.alpha.-styryl)acryloyl groups in the polymer, which exhibit high photochem. activity, are also sensitized by pendant methyleosin moieties.

87133-49-1DP, reaction products with polystyrene contg.
chloromethyl and photosensitizer groups
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. and photochem. reaction of)

RN 87133-49-1 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, potassium salt (9CI) (CA INDEX NAME)

CN | Ph- CH- CH- CH- C- CO2H

● K

L4 ANSWER 45 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1983:523029 CAPLUS

DOCUMENT NUMBER:

99:123029

TITLE:

Studies of photopolymer. XX. Syntheses of

photosensitive polymers with pendant photosensitive

groups and photosensitizer groups

AUTHOR(S):

Iizawa, Takashi; Nishikubo, Tadatomi; Uemura,

Shoichi;

CORPORATE SOURCE:

Kakuta, Kazuo; Takahashi, Eiji; Hasegawa, Masaki Dep. Appl. Chem., Kanagawa Univ., Yokohama, 221,

Japan

Kobunshi Ronbunshu (1983), 40(7), 425-32

SOURCE:

CODEN: KBRBA3; ISSN: 0386-2186

DOCUMENT TYPE: Journal LANGUAGE: Japanese

Polymers (I) with pendant photosensitizer groups and C1CH2 groups were prepd. by radical copolymn. of photosensitizer group-contg. methacrylate esters CH2: CMeCO2R [R = CH2CONHC6H4NO2-p (A), 4-nitro-1naphthylaminocarbonylmethyl (B), CH2CO2CHPhBz (C), and 2-CH2CO2C6H3(OMe)Bz-4,1 (D)] with (chloromethyl)styrene, and subsequent

substitution reaction of I with photoreactive K carboxylates

[PhCH: CHCO2K,

PhCH:CHCH:C(CN)CO2K, MeCH:CHCO2K, BzCH:CHC6H4CO2K-p, and p-BzCH:CHC6H4CH:CHC02K] and NaN3 using phase-transfer catalyst in aprotic polar solvents gave the title polymers (II). The rates of the photochem. reactions of II were measured by IR spectrometry, and indicated that the pendant cinnamate ester is sensitized effectively by pendant groups such A, B, and C. The pendant crotonate ester is sensitized by pendant C and

D moieties. Photodegrdn. rate of the pendant CH2N3 group is promoted by the

pendant photosensitizer groups.

87133-49-1DP, reaction products with photosensitizer group-contg. ΙT (chloromethyl)styrene-methacrylate ester copolymer RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and photochem. reactions of)

RN 87133-49-1 CAPLUS

2,4-Pentadienoic acid, 2-cyano-5-phenyl-, potassium salt (9CI) (CA INDEX CN

CN Ph-CH=CH-CH=C-CO2H

K

ANSWER 46 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1982:226419 CAPLUS

DOCUMENT NUMBER: 96:226419

TITLE: Reversible photodimerization of some butadiene

derivatives in solid state

AUTHOR(S): Swamy, H. Ramachandra; Ramamurthy, V.; Rao, C. N. R. CORPORATE SOURCE: Dep. Org. Chem., Indian Inst. Sci., Bangalore, 560

012, India

SOURCE: Indian Journal of Chemistry, Section B: Organic

Chemistry Including Medicinal Chemistry (1982),

21B(2), 79-82

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal LANGUAGE: English

Photodimerization of a series of butadiene derivs. in the solid state was studied to explore the possible occurrence of reversible photochromism. The study underscored the importance of topochem. factors in solid state

org. reactions.

IT 81620-80-6

> RL: RCT (Reactant); RACT (Reactant or reagent) (photolysis of, in solid state)

RN 81620-80-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

ANSWER 47 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1982:180289 CAPLUS

DOCUMENT NUMBER: 96:180289

TITLE: Structural effect in cross conjugative systems. IV.

Properties of .alpha.-carboxyphenylpolyenic cyanides

and the quantum chemical calculation of orbital

energy

ΙT

and bond order

AUTHOR(S): Liang, Desheng; Lai, Chugen; Chiang, Mingchien CORPORATE SOURCE: Inst. Chem., Acad. Sin., Shanghai, Peop. Rep. China Fenzi Kexue Xuebao (1981-1982) (1981), 1(1), 17-30 SOURCE:

CODEN: FKXUDX; ISSN: 0253-3677

DOCUMENT TYPE: Journal LANGUAGE: Chinese

AΒ all-trans-Ph(CH:CH)nCH:C(CN)CO2H (I) are prepd. and their UV and mass spectra are obsd. The MO, .pi.-energy differences, and .pi.-bond orders of I are calcd. by CNDO/2. The properties of I are correctly calcd. by using the extended form of the homologous equation for the corresponding linear conjugated system (.omega.-phenylpolyenic nitriles) with an

.alpha.-CO2H group substituent. Cross-conjugated systems may be generally

treated by allowing 1 of the 2 branches to become the terminal group of a

linear conjugated system while the other branch becomes the substituent.

81620-80-6

RL: PRP (Properties)

(bond order and UV of, MO calcn. of)

RN 81620-80-6 CAPLUS

2,4-Pentadienoic acid, 2-cyano-5-phenyl-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

ANSWER 48 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1981:193072 CAPLUS

DOCUMENT NUMBER: 94:193072

TITLE: Photochemistry of polymeric systems. III.

Photocrosslinking of polymers and copolymers

including

cyanocinnamylidene-pyridinium groups

AUTHOR(S): Roucoux, Colette; Loucheux, Claude; Lablache-Combier,

Alain

CORPORATE SOURCE: Lab. Chim. Macromol., Univ. Sci. Tech. Lille,

Villeneuve d'Ascq, F-59655, Fr.

SOURCE: Journal of Applied Polymer Science (1981), 26(4),

1221-32

CODEN: JAPNAB; ISSN: 0021-8995

DOCUMENT TYPE: Journal LANGUAGE: English

Photocrosslinkable polymers were obtained by reacting 2-bromoethyl esters of cinnamic acid or cyanocinnamylideneacetic acid with pyridine units of

а

(co)polymer such as poly(4-vinylpyridine) or styrene-4-vinylpyridine copolymer. These photosensitive polymers were characterized by conventional anal. and spectrometry. Photocrosslinking was studied on thin films by measuring the threshold of insolubilization together with

UV

and IR spectra.

ΙT 24139-57-9

> RL: RCT (Reactant); RACT (Reactant or reagent) (esterification of, with bromoethanol)

RΝ 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

CN Ph-CH=CH-CH=C-CO2H

ANSWER 49 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1978:508877 CAPLUS

DOCUMENT NUMBER: 89:108877

TITLE: Alkaline hydrolysis of products of the condensation

of

2-hydroxy-2,5-dihydrofurans with cyanoacetic ester

AUTHOR(S): Orlova, A. N.; Efremov, D. A.

CORPORATE SOURCE:

Leningr. Gos. Pedagog. Inst., Leningrad, USSR Zhurnal Organicheskoi Khimii (1978), 14(6), 1302-5 SOURCE:

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GΙ

AB Condensation of I (R, R1 = Ph, p-tolyl) with NCCH2CO2Et gave II, which were hydrolyzed to Me2C(OH)CR:CHCR1:C(CN)CO2H. The formation and condensation of furylium perchlorates were also described.

IT 67295-13-0P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 67295-13-0 CAPLUS

CN2,4-Heptadienoic acid, 2-cyano-6-hydroxy-6-methyl-3-(4-methylphenyl)-5phenyl- (9CI) (CA INDEX NAME)

ANSWER 50 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1978:97440 CAPLUS

DOCUMENT NUMBER: 88:97440

TITLE:

Photopolymerizable materials for printing plates INVENTOR(S): Gates, Allen Peter; Hinch, Stephen Charles; Withers,

Christopher Vaughan

PATENT ASSIGNEE(S): Vickers Ltd., UK

SOURCE: Ger. Offen., 34 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2658272	A1	19770714	DE 1976-2658272	19761222
GB 1572441	Α	19800730	GB 1975-52522	19751223
SE 7614315	Α	19770624	SE 1976-14315	19761220
SE 424642	В	19820802		
SE 424642	С	19821111		
BR 7608579	Α	19771227	BR 1976-8579	19761221
PL 103094	P	19790531	PL 1976-194590	19761221
CA 1107444	A1	19810818	CA 1976-268315	19761221
NO 7604338	Α	19770624	NO 1976-4338	19761222
FI 7603683	Α	19770624	FI 1976-3683	19761222

```
FI 64863
                      В
                           19830930
     FI 64863
                      С
                            19840110
     DK 7605799
                      Α
                           19770624
                                          DK 1976-5799
                                                           19761222
                                          NL 1976-14259
                                                           19761222
    NL 7614259
                      Α
                           19770627
                                          FR 1976-38665
                                                           19761222
     FR 2336707
                      A1
                           19770722
     FR 2336707
                      В1
                           19830429
                           19780629
                                          AU 1976-20818
                                                           19761222
    AU 7620818
                      Α1
                      B2 19800612
    AU 510145
                           19820415
                                          CH 1976-16199
                                                           19761222
     CH 629314
                      Α
     BE 849803
                      A1 19770623
                                          BE 1976-173590
                                                           19761223
     JP 52086488
                      A2 19770718
                                          JP 1976-154335
                                                           19761223
                                          ZA 1976-7635
                                                           19761223
     ZA 7607635
                      A
                           19771130
                                          ES 1976-454521
                                                           19761223
     ES 454521
                      A1 19771201
                                                           19761223
     AT 7609640
                      A
                           19780715
                                          AT 1976-9640
     AT 348552
                           19790226
                      В
                                          CS 1976-8572
                                                           19761223
     CS 212783
                      Ρ
                           19820326
                                          US 1979-49272
                                                           19790618
     US 4263394
                           19810421
                      Α
PRIORITY APPLN. INFO.:
                                        GB 1975-52522
                                                           19751223
                                       US 1976-753281
                                                           19761222
     Reaction products of glycidyl acrylate polymers and cinnamylidenemalonic
AB
     acids are useful as photopolymerizable materials which, in their uncured
     form, are sol. in aq. solns. of inorg. salts. These materials are esp.
     useful in prepg. printing plates. Thus, poly(2,3-expoxypropyl
     methacrylate) 5 g was dissolved in 2-butanone 100 mL and then mixed with
     cinnamylidenemalonic acid 9.17 and benzyltriethylammonium chloride 0.4 g.
     The mixt. was then heated 5 h at 80.degree., cooled, pptd. in water 2 L,
     and filtered off. This polymer 2 g was then dissolved in 2-butanone 100
     mL, coated on a grained and anodically oxidized Al support, dried 2 min
at
     80.degree., exposed to a 4000-W Xe lamp through a neg., and developed in
а
     5.7% aq. Na metasilicate soln. to give a printing plate capable of giving
     many tech. satisfactory prints.
TΤ
     54681-21-9
     RL: USES (Uses)
        (dto)
RN
     54681-21-9 CAPLUS
     2,4-Pentadienoic acid, 2-cyano-3-methyl-5-phenyl- (7CI, 9CI) (CA INDEX
CN
   Me
```

IT 65547-19-5

RN

CN

RL: TEM (Technical or engineered material use); USES (Uses) (photopolymerizable compns. contg., for printing plates)
65547-19-5 CAPLUS
2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, homopolymer,

2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, homopolymer, 2-cyano-5-phenyl-2,4-pentadienoate [3-(3-nitrophenyl)-2-propenylidene]propanedioate (9CI) (CA INDEX NAME)

CM 1

CRN 95207-71-9 CMF C12 H9 N O6

CM 2

CRN 24139-57-9 CMF C12 H9 N O2

CM 3

CRN 25067-05-4 CMF (C7 H10 O3)x CCI PMS

CM 4

CRN 106-91-2 CMF C7 H10 O3

IT 24139-57-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 51 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1978:14340 CAPLUS

DOCUMENT NUMBER: 88:14340

TITLE: Photopolymer printing plates

INVENTOR(S):
Ohta, Takatoshi

PATENT ASSIGNEE(S): Okamoto Chemical Industry Co., Ltd., Japan

SOURCE: Fr. Demande, 7 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

GΙ

with

$$\begin{array}{c|c}
CH_3 & O-CH_2-CH-CH_2\\
CH_3 & O-CO-C=CH-CH=CH-Ph\\
CN & CN
\end{array}$$

Polymeric compns. I (n .gtoreq. 50; m = 0 or 1), which are epichlorohydrin-Bisphenol A condensates of mol. wt. between 5000 and 50,000, whose OH groups are esterified to >70% with .alpha.-cyanocinnamylideneacetic or .alpha.-cyanocinnamic acid, are superior in sensitivity, ink-receptivity, and abrasion-resistance to the phenoxy cinnamate polymers without the CN group (CA 69: 44438c). Thus, Bakelite PKHA (Union Carbide; mol. wt. .apprx.10,000) was treated at 0.degree.

an equal wt. of .alpha.-cyanocinnamylideneacetyl chloride in PhMe-pyridine. A soln. of the obtained polymer 1 g with Michler's ketone 100 mg and crystal violet 50 mg in a mixt. of PhCl 30 and dioxane 20 mL was coated on a brushed Al plate, exposed to a C arc lamp, and developed by light rubbing with a cotton wad impregnated with ClCHl:CCl2. The

plate
 yielded .apprx.100,000 prints of good quality.

IT 63278-64-8 64772-37-8

RL: USES (Uses)

(photopolymer compn. contg., for printing plate prepn.)

RN 63278-64-8 CAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane,

2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

CM 2

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) \times

CCI PMS

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

CM 4

CRN 80-05-7 CMF C15 H16 O2

RN 64772-37-8 CAPLUS

L4 ANSWER 52 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1977:584347 CAPLUS

DOCUMENT NUMBER:

87:184347

TITLE:

A one step route to new selenopyrone or

selenopyrylium

derivatives from .beta.-chloropropenylideneimmonium

salts and selenium nucleophiles

AUTHOR(S):

Liebscher, J.; Hartmann, H.

CORPORATE SOURCE:

Sekt. Chem., Tech. Univ., Dresden, E. Ger.

Page 94

SOURCE: Tetrahedron (1977), 33(7), 731-4

CODEN: TETRAB

DOCUMENT TYPE:
LANGUAGE:

Journal German

GI

Cyclocondensation reaction of .beta.-aminovinylseleno ketones with arylacetic acid chlorides, N-iminoformylarylacetic imidochlorides, and cyanoacetic acid derivs. gave 6-aryl-2-selenopyrones, 6-aryl-2-(N-formamido)selenopyrylium salts, and 6-aryl-2-aminoselenopyrylium salts, resp. E.g., PhCSeCH:CHNR2 (NR2 = piperidino) with PhCH2COCl, PhCH2CCl:NCH:N+Me2 ClO4-, and NCCH2CONH gave 46% I (R = O), 61% I (R = NCH:N+Me2 ClO4-), and 12% II, resp. 6-Aryl-2-aminoselenopyrylium salts were also prepd. by cyclocondensation of 3-(.beta.-chlorovinyl)acrylonitriles with NaHSe. E.g., PhCCl:CHCH:C(CN)CONH2 with NaHSe gave 28% II.

IT 64306-22-5

RL: RCT (Reactant)

(cyclocondensation reaction of, with sodium hydrogen selenide)

RN 64306-22-5 CAPLUS

CN 2,4-Pentadienoic acid, 5-chloro-2-cyano-5-phenyl- (9CI) (CA INDEX NAME)

L4 ANSWER 53 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1977:468833 CAPLUS

DOCUMENT NUMBER: 87:68833

TITLE: A study on phenoxy-resin esters of

cinnamylideneacetic

acid and its derivatives

AUTHOR(S): Yamaoka, Tsuguo; Ueno, Koji; Tsunoda, Takahiro;

Torige, Kazuo

CORPORATE SOURCE: Fac. Eng., Chiba Univ., Chiba, Japan

SOURCE: Polymer (1977), 18(1), 81-6 CODEN: POLMAG; ISSN: 0032-3861

DOCUMENT TYPE: Journal LANGUAGE: English

AB Treatment of Epicoat PKHH 30,000 [25068-38-6] with cinnamylideneacetyl

chloride [40926-86-1], .alpha.-cyanocinnamylideneacetyl chloride [25519-47-5], and cinnamylidenepyruvyl chloride [63257-27-2] resulted in

63-78% esterification of the polymer giving 3 photocrosslinkable resins

of

which Epicoat PKHH 30,000 cinnamylidenepyruvate (I) [58858-02-9] had the highest photosensitivity. The spectral sensitivity of I extended to 500 nm without the aid of a photosensitizing dye. Pyrilium and thiopyrilium perchlorates spectrally sensitized all 3 resin esters, the effects of alkoxy-substituted sensitizers, e.g. 2,4,6-trianisylpyrilium perchlorate [63373-56-8], being greater than those of sensitizers contg. no alkoxy groups, e.g. 2,4,6-triphenylpyrilium perchlorate [1484-88-4]. The spectral sensitivities of the polymers were shifted to longer wavelengths by such sensitizers contg. p-alkoxy groups. The photocrosslinking kinetics were examd.

IT 24139-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (chlorination of)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

IT 63278-64-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and photocrosslinking of)

RN 63278-64-8 CAPLUS

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane,

2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

CM 2

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) x

CCI PMS

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

CM 4

CRN 80-05-7 CMF C15 H16 O2

L4 ANSWER 54 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1976:592202 CAPLUS

DOCUMENT NUMBER: 85:192202

TITLE: Chemistry of tetra-alkoxyethenes. Part VII. Thermal

[2 + 2] cycloadditions with 1-cyanobutadienes

AUTHOR(S): Ooms, Pieter H. J.; Bertisen, Mat A.; Scheeren, Hans

W.; Nivard, Rutger J. F.

CORPORATE SOURCE: Dep. Org. Chem., Cathol. Univ., Nijmegen, Neth.

SOURCE: J. Chem. Soc., Perkin Trans. 1 (1976), (14), 1538-43

CODEN: JCPRB4

DOCUMENT TYPE: Journal

LANGUAGE: English

GΙ

RCH=CH
$$\xrightarrow{R^1}$$
CN
R2O $\xrightarrow{R^2}$ OR2 II

AB RCH:CHCH:CR1CN (I; R = Me, iso-Pr, 4-O2NC6H4, 4-ClC6H4, 4-MeC6H4, 4-MeC6H4, Ph, 2-furyl, R1 = CN; R = Ph, R1 = SO2Ph, CONH2, CO2Et, COPh), prepd. by literature methods or Knoevenagel condensation of RCH:CHCHO with

CH2R1CN, underwent [2 + 2] and not [4 + 2] cycloaddn. with (R2O)2C:C(OR2)2

(R2 = Me, Et) to give 50-95% cycloadducts II. A comparison of the reactivity of the butadienes I with that of electron poor olefins towards the nucleophilic tetraalkoxyethenes is exemplified by the similarity of substituent effects on the cycloaddns., for which a possible explanation

is given.

IT 60983-35-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and cycloaddn. reaction with tetraalkoxyethenes)

RN 60983-35-9 CAPLUS

CN 2,4-Pentadienenitrile, 3,4-dimethyl-5-phenyl-2-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 55 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1976:458179 CAPLUS

DOCUMENT NUMBER: 85:58179

TITLE: The mechanism of the inhibition of the mitochondrial

pyruvate transporter by .alpha.-cyanocinnamate

derivatives

AUTHOR(S): Halestrap, Andrew P.

CORPORATE SOURCE: Dep. Biochem., Univ. Bristol, Bristol, Engl.

SOURCE: Biochem. J. (1976), 156(1), 181-3

CODEN: BIJOAK

DOCUMENT TYPE: Journal LANGUAGE: English

AB .alpha.-Cyano-4-hydroxycinnamate (I) (0.1mM) totally, rapidly, and reversibly inhibited mitochondrial pyruvate transport at 6 and

reversibly inhibited mitocho 22.degree..

I reacted reversibly with mercaptoethanol and cysteine to form addn. products, suggesting that I reacts with an essential thiol group on the pyruvate carrier.

IT 24139-57-9

RL: BIOL (Biological study)

(transport of pyruvate by mitochondria inhibition by)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 56 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1976:143069 CAPLUS

DOCUMENT NUMBER: 84:143069

TITLE: Photosensitive epoxy resin for printing plate

INVENTOR(S):
Ueno, Koji; Tsunoda, Takahiro

PATENT ASSIGNEE(S): Ueno Chemical Industries, Ltd., Japan

SOURCE: Japan. Kokai, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 50116022 A2 19750911 JP 1974-22217 19740225

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A photosensitive compn. prepd. from an epoxy .alpha.cyanocinnamylideneacetate resin (I) or an epoxy cinnamylidenepyruvate
resin (II) exhibits an excellent photosensitivity even at long
wavelengths, and also exhibits good adhesive properties towards metal
supports; hence it is useful for prepg. highly sensitive presensitized
printing plates. Optionally, a pyrylium-type sensitizer may be added to
the photosensitive compn. Thus an epoxy resin (mol. wt. .apprx.30,000)
was dissolved in dioxane, then a catalytic amt. of pyridine and
PhCH:CHCH:C(CN)COCl (in excess with respect to OH groups of the resin)
were added to the soln., and the mixt. was heated at 45-50.degree. for 4
hr to give a photosensitive resin I which was sensitive in the region of
.apprx.300-450 nm. The addn. of 2,4,6-trianisylthiapyrylium perchlorate
extended the photosensitivity of the resin to .ltoreq.590 nm.

IT 58858-03-0

RL: USES (Uses)

(photosensitive compns. contg., for presensitized printing plates)

RN 58858-03-0 CAPLUS

L4 ANSWER 57 OF 70 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1975:454719 CAPLUS

DOCUMENT NUMBER: 83:54719

TITLE: Mitochondrial pyruvate carrier. Kinetics and

specificity for substrates and inhibitors

AUTHOR(S): Halestrap, Andrew P.

CORPORATE SOURCE: Med. Sch., Univ. Bristol, Bristol, Engl.

SOURCE: Biochem. J. (1975), 148(1), 85-96

CODEN: BIJOAK

DOCUMENT TYPE: Journal LANGUAGE: English

AB At 6.degree. the Km for pyruvate (I) transport by rat liver mitochondria was 0.15mM and Vmax. was 0.54 nmoles/min/mg protein; .alpha.-cyano-4-hydroxycinnamate (II) was a noncompetitive inhibitor, Ki 6.3.mu.M, and phenylpyruvate was competitive, Ki 1.8mM. At 100.mu.M II rapidly and almost totally inhibited O uptake by rat heart mitochondria oxidizing I. Inhibition by II analogs showed the .alpha.-cyanopropenoate group and hydrophobic arom. side chain to be important structural features. Oxamate, 2-oxobutyrate, phenylpyruvate, 2-oxo-4-methylpentanoate, chloroacetate, dichloroacetate, difluoroacetate, 2-chloropropionate,

3-chloropropionate, and 2,2-dichloropropionate all exchanged with I whereas acetate, lactate, and trichloroacetate did not. I transport was accompanied by H+ flux (or exchange with OH-), which was also inhibited

by

II. At 37.degree. the rate of I transport was 42 nmole/min/mg protein. The possible rate-limiting role of I transport in gluconeogenesis was discussed. The transport of monocarboxylic acids into mitochondria was studied by monitoring H+ influx.

IT 24139-57-9

RL: BIOL (Biological study)

(pyruvate transport by mitochondria inhibition by)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 58 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1975:156187 CAPLUS

DOCUMENT NUMBER: 82:156187

TITLE: Preparation of 3-substituted

5-amino-1,2,4-oxadiazoles

from amidoximes with cyanogen bromide

AUTHOR(S): Dost, Johannes; Leisner, Rudi

CORPORATE SOURCE: Sekt. Chem./Biol., Paedagog. Hochsch. "Wolfgang

Ratke", Koethen, E. Ger. Z. Chem. (1975), 15(2), 57

CODEN: ZECEAL

DOCUMENT TYPE: Journal LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB Oxadiazoles I (R = Me, Ph, PhCH2, PhCH:CH, Ph(CH:CH)2, Me2NC6H4CH:CH, HO2CCH2, PhCH:CHCH:C(CO2R1), MeOC6H4CH:C(CO2R1), Me2NC6H4CH:C(CO2R1), R1

H, R) were prepd. in 60-5% yield by treating RC(:NOH)NH2 with BrCN. RC(:NOH)NH2 were prepd. from RCN and NH2OH.

IT 24139-57-9

SOURCE:

RL: RCT (Reactant)

(reaction of, with hydroxylamine)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1975:86169 CAPLUS

DOCUMENT NUMBER: 82:86169

TITLE: Synthesis of gem-diactivated dienes by a condensation

related to the Stobbe reaction

AUTHOR(S): Martelli, J.; Danion, D.; Carrie, R.

CORPORATE SOURCE: Group Rech. Physiochim. Struct., Univ. Rennes,

Rennes,

Fr.

SOURCE: Tetrahedron (1974), 30(17), 3063-71

CODEN: TETRAB

DOCUMENT TYPE: Journal LANGUAGE: French

GI For diagram(s), see printed CA Issue.

AB Condensation of RCH2CR1:C(CN)CO2R2 I (R = H, Me, Ph; R1 = alkyl, Ph, substituted Ph; R2 = Me, Et) with R3R4CO (R3 = H; R4 = alkyl, aryl, styryl; R3 = R4 = alkyl) using 1 equiv. of base gave the gem-diactivated alkenes R3CR4:CRCR1:C(CN)CO2H (R3. = R = H) or the lactones II. Me esters of I were photochem. isomerized and the configurations of the products

detd. by NMR.

IT 54561-76-1P 54680-90-9P 54680-96-5P 54680-98-7P 54681-21-9P 54681-22-0P 54691-22-6P

54681-23-1P 54681-27-5P 54681-28-6P 54681-29-7P 54681-30-0P 54681-31-1P

54681-32-2P 54681-49-1P

RN 54561-76-1 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3,5-diphenyl- (9CI) (CA INDEX NAME)

RN 54680-90-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3,5-bis(4-nitrophenyl)- (9CI) (CA INDEX NAME)

RN 54680-96-5 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-4,5-diphenyl-3-(phenylmethyl)-, (Z,Z)-, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 54680-95-4

Page 101

CMF C25 H19 N O2

Double bond geometry as shown.

CM 2

CRN 110-89-4 CMF C5 H11 N

RN 54680-98-7 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-4,5-diphenyl-3-(phenylmethyl)-, (Z,E)-, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 54680-97-6 CMF C25 H19 N O2

Double bond geometry as shown.

CM 2

CRN 110-89-4 CMF C5 H11 N

RN 54681-21-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3-methyl-5-phenyl- (7CI, 9CI) (CA INDEX NAME)

RN 54681-22-0 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3-ethyl-5-phenyl- (9CI) (CA INDEX NAME)

RN 54681-23-1 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-3-(phenylmethyl)- (9CI) (CA INDEX

NAME)

$$\begin{array}{c|c} & \text{CN} & \text{CH}_2\text{--} \text{Ph} \\ & | & | \\ & \text{HO}_2\text{C}\text{--} \text{C}\text{---} \text{CH}\text{----} \text{CH}\text{---} \text{Ph} \end{array}$$

RN 54681-27-5 CAPLUS

CN 2,4-Pentadienoic acid, 5-(4-chlorophenyl)-2-cyano-3-phenyl- (9CI) (CA INDEX NAME)

$$CH = CH - C = C - CO_2H$$

RN 54681-28-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-nitrophenyl)-3-phenyl- (9CI) (CA INDEX NAME)

RN 54681-29-7 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(4-methoxyphenyl)-3-phenyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{CN} \\ | & | \\ | & \text{CH} \end{array}$$

RN 54681-30-0 CAPLUS

CN 2,4-Pentadienoic acid, 3-(4-chlorophenyl)-2-cyano-5-phenyl- (9CI) (CA INDEX NAME)

RN 54681-31-1 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3-(4-nitrophenyl)-5-phenyl- (9CI) (CA INDEX NAME)

RN 54681-32-2 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3-(4-methoxyphenyl)-5-phenyl- (9CI) (CA INDEX NAME)

RN 54681-49-1 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-4-methyl-3,5-diphenyl-, (Z)-, compd. with piperidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 54681-48-0 CMF C19 H15 N O2

CM 2

CRN 110-89-4 CMF C5 H11 N



L4 ANSWER 60 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1975:72513 CAPLUS

DOCUMENT NUMBER: 82:72513

TITLE: Novel method of demethoxycarbonylation AUTHOR(S): Texier, F.; Marchand, E.; Carrie, R. CORPORATE SOURCE: Dep. Chem., Univ. Oran, Oran, Algeria SOURCE: Tetrahedron (1974), 30(17), 3185-92

CODEN: TETRAB

DOCUMENT TYPE: Journal LANGUAGE: French

AB On treatment with piperidine in boiling PhMe for 48 hr, RCH(CO2R1)2 (I, R = H, PhCH2, R1 = Me) and RCH(CN)CO2R1 (R = H, Ph2CH, R1 = Me, Et) underwent 10-100% loss of CO2R1 to give RCH2CO2R1 and RCH2CN, resp. Piperidinyl amides were also obtained. Similar treatment of Ph2C:C(CN)CO2Me for 96 hr gave Ph2C:CHCN quant. Substituted malonic and cyanoacetic acids were decarboxylated by this method.

54561-76-1

IT

```
RL: RCT (Reactant)
        (decarboxylation of, by piperidine)
RN
     54561-76-1 CAPLUS
CN
     2,4-Pentadienoic acid, 2-cyano-3,5-diphenyl- (9CI) (CA INDEX NAME)
      CN Ph
HO2C-C= C-CH= CH-Ph
    ANSWER 61 OF 70 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1974:4218 CAPLUS
DOCUMENT NUMBER:
                       80:4218
TITLE:
                       Acrylic acid polyesters
INVENTOR(S):
                       Nishikubo, Tadatomi; Imamura, Yoshinori; Ina,
Tsutomu;
                        Takaoka, Tsuneo
PATENT ASSIGNEE(S):
                        Nippon Oil Seal Industry Co., Ltd.
                        Ger. Offen., 32 pp. Division of Ger. Offen. 2,060,873
SOURCE:
                        (CA 75;89129t).
                        CODEN: GWXXBX
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        German
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:
                KIND DATE
                                         APPLICATION NO. DATE
     PATENT NO.
     -----
                                          -----
                                                          -----
    DE 2065417 A1
DE 2065417 B2
DE 2065417 C3
GB 1339884 A
                           19730705
                                          DE 1970-2065417 19701210
                           19750410
                           19790705
                                                         19701210
                           19731205
                                        GB 1973-23589
PRIORITY APPLN. INFO.:
                                       JP 1969-98652
    Acrylic polymers with unsatd. sidechains were manufd. by treating
polymers
     of hydroxyalkyl acrylates with aryl-substituted unsatd. acid halides or
     arenecarboxylic halides. Thus, 7.5 g poly(2-hydroxyethyl acrylate) was
     heated 5 hr at 50.deg. with 12.9 g cinnamoyl chloride in
     hexamethylphosphoramide, giving 9.0 g poly(2-hydroxyethyl acrylate)
     cinnamate (I) [39448-84-5]. A 1 .mu. coating of I on a glass plate was
uv
     irradiated through a stepped photometric absorption wedge, giving images
     which could be differentiated through the third stage.
     39465-24-2P
IT
     RL: PREP (Preparation)
        (manuf. of photo crosslinkable)
     39465-24-2 CAPLUS
RN
     2-Propenoic acid, 2-hydroxyethyl ester, homopolymer,
2-cyano-5-phenyl-2,4-
     pentadienoate (9CI) (CA INDEX NAME)
     CM
         1
```

```
Page 106
```

CRN 24139-57-9 CMF C12 H9 N O2

CN | CH = CH - CH = C - CO₂H

CM 2

CRN 26022-14-0 CMF (C5 H8 O3)x CCI PMS

CM 3

CRN 818-61-1 CMF C5 H8 O3

 $\begin{array}{c} \text{O} \\ || \\ \text{HO-CH}_2\text{-CH}_2\text{-O-C-CH------} \text{CH}_2 \end{array}$

L4 ANSWER 62 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1973:453143 CAPLUS

DOCUMENT NUMBER: 79:53143

TITLE: Synthesis of substituted 2H-thiopyran-2-ones

AUTHOR(S): Weissenfels, Manfred; Illing, Siegfried

CORPORATE SOURCE: Sekt. Chem., Karl-Marx-Univ., Leipzig, E. Ger.

SOURCE: Z. Chem. (1973), 13(4), 130

CODEN: ZECEAL

DOCUMENT TYPE: Journal LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB Knoevenagel reaction of HSCPh:CPhCHO with CH2(CN)2 gave 44% title compd. (I, R = CN, R1 = Ph). This was also obtained in 62% yield from treating ClCPh:CPhCHO with CH2(CN)2 via 95% ClCR2:CR1CH:CRCN (II, R = CN, R1 = R2

Ph) intermediate by reaction with Na2S, HCl, and H2O. Similarly, 7 other II [R = CO2Et, CN, COPh, CONH2; R1 = Ph, H; R2 = Ph, or R1R2 = (CH2)4] were isolated in 70-95% yield, but only in the case of II (R = CO2Et, R1

H, R2 = Ph), a further postulated intermediate MeSCPh:CHCH:C(CN)CO2H was isolated. Similarly prepd. were 42% I (R = H, R1 = Ph) and 46% I (R =

CN, R1 = H).

__

IT 41877-87-6P

RN 41877-87-6 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-(methylthio)-5-phenyl- (9CI) (CA INDEX

NAME)

L4 ANSWER 63 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

1973:59304 CAPLUS

DOCUMENT NUMBER:

78:59304

TITLE:

Photosensitive poly(vinyl esters)

INVENTOR(S):

Takaoka, Tsuneo; Nishikubo, Tadatami; Imamura,

Yoshiki

PATENT ASSIGNEE(S):

Japan Oil Seal Industry Co., Ltd.

SOURCE:

Jpn. Tokkyo Koho, 2 pp.

CODEN: JAXXAD

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
TD 47036270	ВЛ	19720912	TP 1969-93745	19691122

JP 47036270 B4 19720912 JP 1969-93745 19691122

AB Poly(vinyl alc.) (3 g, d.p. 2000, sapon. degree 80%) was swollen in 3 g pyridine and treated 5 hr at 60.deg. with 15 g .alpha.-cyanocinnamic acid chloride to form a mixt., which was blended with 200 ml acetone and

heated

2 hr at 50.deg. to yield 9.6 g poly(vinyl .alpha.-cyanocinnamate) [37685-33-9]. The (.alpha.-cyanocinnamylidene)acetate polymer could by similarly prepd.

IT 39283-32-4P

RL: PREP (Preparation)

(manuf. of photosensitive)

RN 39283-32-4 CAPLUS

CN Ethenol, homopolymer, 2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

$$CN$$
 | CH- CH- CH- CC- CO₂H

CM 2

CRN 9002-89-5 CMF (C2 H4 O) x

```
Page 108
```

CCI PMS

CM 3

CRN 557-75-5 CMF C2 H4 O

 $H_2C = CH - OH$

L4 ANSWER 64 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1973:58922 CAPLUS

DOCUMENT NUMBER: 78:58922

TITLE: Photosensitivity of poly(vinyl esters) of substituted

cinnamylideneacetic acids

AUTHOR(S): Tanaka, Hideaki; Sato, Yoshimi

CORPORATE SOURCE: Natl. Chem. Lab. Ind., Hiratsuka, Japan

SOURCE: J. Polym. Sci., Part A-1 (1972), 10(11), 3279-87

CODEN: JPLCAT

DOCUMENT TYPE: Journal LANGUAGE: English

AB Of the photosensitive polymers [-CH2C(O2CCR2:CHCR1:CHPh)H-]n (I, R1 = H, R2 = H, Me, Ph, OPh, CN; R1 = R2 = Me), studied, the polyesters of planar acids reacted photochem. effectively, and were spectrally sensitized by the usual triplet sensitizers, while those of twisted acids had poor photosensitivity. Poly(vinyl .alpha.-cyanocinnamylideneacetate) [38414-31-2] had both good photosensitivity and storage stability.

IT 39283-32-4

RL: USES (Uses)

(photosensitivity of)

RN 39283-32-4 CAPLUS

CN Ethenol, homopolymer, 2-cyano-5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9 CMF C12 H9 N O2

CM 2

CRN 9002-89-5 CMF (C2 H4 O)x CCI PMS

CM 3

CRN 557-75-5 CMF C2 H4 O

 $H_2C = CH - OH$

IT 24139-57-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 65 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1971:509544 CAPLUS

DOCUMENT NUMBER: 75:109544

TITLE: Comparative study of intramolecular

O-phosphorylations

during the condensation of aldehydes with phosphonate

carbanions having several nucleophilic sites

AUTHOR(S): Danion, Daniel; Carrie, Robert

CORPORATE SOURCE: U. E. R. Struct. Prop. Matiere, Univ. Rennes, Rennes,

Fr.

SOURCE: Tetrahedron Lett. (1971), (34), 3219-22

CODEN: TELEAY

DOCUMENT TYPE: Journal LANGUAGE: French

The oxyanion intermediate, PhCH(O-)C(CN)PhCH(CN)P(O)(OEt)2 (I), is stabilized by the CN vicinal to the P; I is formed by an attack at the .beta.-position of PhCH(CN)CH(CN)P(O)(OEt)2 (II). Cyclopropane intermediates are not obtained, but an O-benzyl-O, O-diethyl phosphate is isolated. II is treated with BzH to give PhCH[OP(O)(OEt)2]C(CN)PhCH2CN (III). III is treated with NaH in P(O)(NMe2)3 to give PhCH:C(CN)CH(CN)Ph (IV). NMR spectral data are given for III and IV.

IT 33735-81-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 33735-81-8 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-3,5-diphenyl-, (E,E)- (8CI) (CA INDEX NAME)

Double bond geometry as shown.

L4 ANSWER 66 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1969:523865 CAPLUS

DOCUMENT NUMBER: 71:123865

TITLE: Conjugated imines; addition of active methylene

compounds

AUTHOR(S): Singh, Nazar; Sandhu, J. S. CORPORATE SOURCE: Punjabi Univ., Patiala, India

SOURCE: J. Indian Chem. Soc. (1969), 46(8), 751-3

CODEN: JICSAH

DOCUMENT TYPE: Journal LANGUAGE: English

AB Di-Et malonate reacted with N-cinnamylideneaniline (I) to give

PhCH:CHCH(NHPh)CH(CO2Et)2. Similarly, I reacted with cyanoacetamide, Et cyanoacetate, cyanoacetic acid, malonic acid, and acetylacetone to yield PhCH:CHCH:-CRR1 (R = CN, R1 = CONH2; R = CN, R1 = CO2Et; R = CN, R1 =

CO2H; R = R1 = CO2H; R = R1 = Ac), resp. Malononitrile gave

PhCH[CH(CN)2]CH:CHCH(CN)2 with I. Ir data are given.

IT 24139-57-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 67 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1967:443606 CAPLUS

DOCUMENT NUMBER: 67:43606

TITLE: Condensation of 5,5-dimethyl-2,4-diphenyl-2-hydroxy-

2,5-dihydrofuran with acetic, nitroacetic, and

cyanoacetic acid esters

AUTHOR(S): Orlova, A. N.; Lineva, V. S.

CORPORATE SOURCE: A. I. Gertsen Leningr. Gos. Ped. Inst., Leningrad,

USSR

SOURCE: Zh. Org. Khim. (1967), 3(4), 748-50

CODEN: ZORKAE

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB The title reactions gave Et 2-(5,5-dimethyl-2,4-diphenyl-2,5-dihydro-2-

fury1)-2-nitroacetate (I) and Et
2-(5,5-dimethyl-2,4-diphenyl-2,5-dihydro-

2-furyl)-2-cyanoacetate (II), but no product could be isolated by treating

5,5-dimethyl-2,4-diphenyl-2-hydroxy-2,5-dihydrofuran (III) with AcCH2CO2Et. A mixt. of 3 g. III, 1.6 ml. CH2(NO2)CO2Et, and 3 drops pyridine was heated 2 hrs. at 130-5.degree., cooled, and dild. with Et20 to give 2.7 g. I, m. 68-9.degree. (ligroine-Et20). Similarly, II, m. 118-9.degree. (ligroine-Et20), was prepd. in 65% yield. Hydrolysis of I by boiling in MeOH-HCl or EtOH-NaOH gave 69 and 74% III resp. Similarly, acid or alk. hydrolysis of II under severe conditions gave 70 and 80% I, resp., but mild alk. hydrolysis (4 hrs. at 45-50.degree. of 1.55 g. II in 25 ml. EtOH with 0.55 NaOH in 12 ml. water) gave 78% Me2C(OH)CPh:CHCPh:C(CN)CO2H, m. 50-55.degree. (decarboxylation at 83.degree.), identified by ir and chem. behavior.

IT 15206-91-4P

RN 15206-91-4 CAPLUS

CN 2,4-Heptadienoic acid, 2-cyano-6-hydroxy-6-methyl-3,5-diphenyl- (8CI)

(CA

INDEX NAME)

L4 ANSWER 68 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1966:27520 CAPLUS

DOCUMENT NUMBER: 64:27520

ORIGINAL REFERENCE NO.: 64:5078g-h,5079a-h

TITLE: New synthesis of aryl-substituted 3-azapyrylium salts

and their reaction with CH-acidic compounds

AUTHOR(S): Schmidt, Richard

CORPORATE SOURCE: Tech. Hochsch., Stuttgart, Germany SOURCE: Chem. Ber. (1965), 98(12), 3892-901

DOCUMENT TYPE: Journal LANGUAGE: German

GI For diagram(s), see printed CA Issue.

The reaction of the I, obtained from [Ph3C]ClO4 and 4H-1,3-oxazines, (II) with CH-acidic compds. yielded the corresponding (cis,trans)-butadiene derivs. which were very readily cyclized thermally or in some cases by Et3N to pyridine derivs. The reaction of 4-methylthio-2-aryl-5,6-tetramethylene-3-azapyrylium iodides (III) with CH2(CN)2 (IV) yielded the analogously substituted isoquinoline derivs. The substituted 4H-1,3-oxazinium salts (V) were prepd. by the standard methods and converted with 1:1 NH4OH-H2O to the corresponding VI. VI (R = R1 = R3 = Ph, R2 = H) (VII) (3.11 g.) in 40 cc. dry MeCN treated with stirring at room temp. with 3.42 g. II and cooled after 0.5 hr. to 0.degree. yielded 3.5 g. I (R = R1 = R3 = Ph, R2 = H) (VIII), m. 295-300.degree. (decompn.).

By these methods were prepd. the V, VII, and I listed in the 1st table. VIII (2.05 g.), 0.41 g. IV, and 25 cc. dry MeCN treated dropwise with 0.75

```
cc. Et3N and kept 20 min. gave 1.12 g. IX (R = R1 = R3 = Ph) (X), m.
    242.degree.; the mother liquor yielded 0.62 g.
cis-(NC)2C:CR3CH:CR1NH-COR
     (XI) (R = R1 = R3 = Ph) (XII), m. 176.degree. (EtOH). R, R1, R2, R3, M.p.
     and % yield of V, M.p. and % yield of VII, M.p. and % yield of I; Ph,
PH,
    H, Ph, 204.degree. (decompn.), 64, 106.degree., 82, --, --; p-ClC5H4,
Ph,
    H, Ph, 190.degree. (decompn.), 52, 126.degree., 85, 249-52.degree.
     (decompn.), 94; Ph, p-ClC6H4, H, Ph, 191-2.degree., 64, 132.degree., 80,
     247.degree. (decompn.), 88; Ph, Ph, H, p-ClC6H4, 206.degree., 59,
     131.degree., 81, 244.degree., 93; p-MeC6H4, Ph, H, Ph, 185-7.degree.,
61,
     124-6.degree., 97, 212.degree., 85; Ph, Ph, H, p-MeC6H4, 174-6.degree.
     (decompn.), 84, 100.degree., 86, 250-5.degree. (decompn.), 92; Ph, H, H,
     Ph 230-2.degree., 99, 79-81.degree., 49, --, 94; Ph, H, Ph, Ph,
     210-20.degree. (decompn.), 65, 95-6.degree., 62, --, --; Ph, H, H, Bu,
     194-7.degree., 20, --, --, --; Similarly were prepd. the IX and XI
     listed in the 2nd table. A similar run with 0.65 cc. Et3N gave no X but
     only 1.48 g. mixed XII and the trans-isomer, m. 160-5.degree.. Mp. and
용,
     M.p. and %; R, R1, R3, yield of IX, yield of XI; p-ClC6H4, Ph, Ph,
     231.degree., 65, 161.degree., 22; Ph, p-ClC6H4, Ph, 184.degree., 64, 154.degree., 20; Ph, Ph, p-ClC6H4, 210.degree., 37, 183.degree., 48;
     p-MeC6H4, Ph, Ph, 211-13.degree., 56, 142-4.degree., 26; Ph, Ph,
p-MeC6H4,
     254-5.degree., 56, 168.degree., 25; NCCH2CO2Me and VIII gave similarly
     86% MeO2C(NC)C:CPhCH:CPhNHBz, m. 140-1.degree. (MeOH). BzCH2CN and VIII
     yielded 85% Bz(NC)C:CPhCH:CPhNHBz, m. 161.degree. (EtOH). PhSO2CH2CN and
     VIII gave similarly 96% PhSO2(NC)C:CPhCH:CPhNHBz, m. 174.degree. (EtOH).
     (cis + trans)-XII (1.2 g.) in 25 cc. MeCN with 0.2 cc. Et3N gave X and
     cis-XII. (cis + trans)-XII (3.2 millimoles) treated under various
     conditions with Et3N gave X and cis-XII (millimoles Et3N, reaction time
in
     min., and % yield of X and cis-XII given): 1,4, 20, 42, 51; 1.4, 720, 35,
     55; -- (2 drops), 20, 37, 51; 1.4 (cis-XII used), 1440, --, 95.
     NCCH2CONH2 (18.5 g.) and 3 g. piperidine in 150 cc. 96% EtOH treated at
     70.degree. with 44.8 g Bz2CH2 and refluxed 20 hrs. yielded 34 g.
     2-hydroxy-4,6-diphenyl-3-cyanopyridine (XIII), m. 324.degree.. XIII
(5.44)
     g.) and 3.2 g. Et2NPh in 25 cc. POCl3 heated 2 hrs. at 105.degree. gave
     3.5 g. 2-Cl analog (XIV) of XIII, m. 147-8.degree.. XIV (5.42 g.) in 60
     cc. concd. NH4OH and 30 cc. EtOH heated 48 hrs. in an autoclave at
     100.degree. yielded 3.7 g. 2-NH2 analog (XV) of XIII, m. 184.degree.
     (EtOH). XV (0.9 g.) in 6 cc. C5H5N heated 2.5 hrs. at 100.degree. with
     0.5 BzCl yielded 1.2 g. 2-BzNH analog of XIII, m. 241.degree.. VIII
(2.05)
     g.) in 25 cc. dry MeCN treated 20 min. with 0.9 g. red
     1,3,3-trimethyl-2-(4-benzoylamino-2,4-diphenyl-1,3-butadienyl)indolium
     perchlorate, m. 180-2.degree. (EtOH). By the method of Huenig and
Huebner
     (CA 57, 4654h) were prepd. the following XVI (R, color, m.p., and % yield
     given): p-ClC6H4, brown, 162-3.degree., 51; p-MeC6H4, red-brown,
     166-7.degree., 59; and the following XVII (R, m.p., and % yield given):
     p-ClC6H4, 171.degree., 75; p-MeC6H4, 160-4.degree., 78. XVII (R = Ph)
     (XVIII) (1.92 g.) and 0.35 g. IV treated 35 min. with 0.75 cc. Et3N gave
```

0.8 g. XIX (R = Ph), m. 226-7.degree. (MeCN). Similarly were prepd. from the appropriate III the following XIX (R, m.p., and % yield given): p-ClC6H4, 220.degree., 57; p-MeC6H4, 243.degree., 63.

IT 4604-03-9, Benzamide, N-[4-cyano-1,3-diphenyl-4-(phenylsulfonyl)-1,3-butadienyl]-

(prepn. of)

RN4604-03-9 CAPLUS

Benzamide, N-[4-cyano-1,3-diphenyl-4-(phenylsulfonyl)-1,3-butadienyl]-CN(7CI, 8CI) (CA INDEX NAME)

ANSWER 69 OF 70 CAPLUS COPYRIGHT 2002 ACS L4

ACCESSION NUMBER:

1962:456063 CAPLUS

DOCUMENT NUMBER:

57:56063

ORIGINAL REFERENCE NO.: 57:11116f-i,11117a

Ultraviolet falters

TITLE: INVENTOR(S):

Wahl, Ottmar; Goetze, Johannes

SOURCE: DOCUMENT TYPE: 6 pp.

Patent

LANGUAGE:

Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1128603		19620420	DE	19590312
GB 948627			GB	
US 3125597		1964	US	

AΒ The following derivs. of 1-phenyl, 3-butadiene were good absorbers for ultraviolet light: PhCH:CHCH:C(CN)CO2H, yellow, m. 210.degree.; Na salt and Et ester, yellow, m. 115.degree.. PhCH:CHCH:C(CO2 H)2, yellow, m. 207.degree.; di-Na salt, white, m. above 360.degree.; di-Me ester, m. 62.degree.; dicyclohexylamine salt; di-BuNH2 salt, m. 128.degree.; distearylamine salt, m. 121.degree. (AcOEt). PhCH: CHCH: CPhCO2R (I) (R and properties): H, m. 188.degree.; Na, white leaflets; Me, m.

82.degree.;

Et, m. 52.degree.; iso-Pr, yellow oil, b0.4 198.degree.; iso-Bu, very viscous oil, b0.2-0.3 199-202.degree.; iso-Am, very viscous oil, b0.2 198.degree.; CH2CH(OH)Me [from I (R = H) and 1,2-propylene glycol], very viscous oil, b0.4 225-35.degree. and CH2CH(OH)CH2CH2OH [from I [R = H)

and

1,2,4-butanetriol] highly viscous oil. I (R = H) (50 g.), 50 ml. SOC12, and 50 ml. C6H6 were refluxed 5 hrs. to yield the acid chloride of I, m. 93.degree. (CS2 and petr. ether); this chloride, reacted with HOCH2CH2NH2 gave the ethanolamide of I, m. 152.degree. (MeOH, and with cyclohexylamine, the cyclohexylamide, m. 177.degree. (C6H6). An ice-cooled mixt. of 25 g. phenylacetone and 25 g. cinnamaldehyde was satd.

with HCl-gas; after standing for 24 hrs., the viscous mass was dissolved in EtOH, the soln. cooled in CO2/acetone, the EtOH decanted and the solid residue distd. to yield PhCH:CHCH:CPhCOMe, yellow, b0.3 185-9.degree., m. 78.degree. (iso-PrOH). o-Chlorocinnamaldehyde (20 g.), 20 g. malonic acid, and 20 g. AcOH heated 5 hrs. on steam bath yielded 2-ClC6H4CH:CHCH:C(CO2H)2, light yellow, m. 219.degree. (EtOH); di-Na salt,

m. above 360.degree.. Absorption spectra are given.
IT 24139-57-9, 2,4-Pentadienoic acid, 2-cyano-5-phenyl93506-68-4, 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, sodium salt
(prepn. of)

RN 24139-57-9 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} CN \\ | \\ Ph-CH-CH-CH-C-CO_2H \end{array}$$

RN 93506-68-4 CAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, sodium salt (7CI) (CA INDEX NAME)

$$\begin{array}{c} CN \\ | \\ Ph-CH-CH-CH-C-CO_2H \end{array}$$

Na

L4 ANSWER 70 OF 70 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1962:24786 CAPLUS

DOCUMENT NUMBER: 56:24786

ORIGINAL REFERENCE NO.: 56:4633b-i,4634a-c

TITLE: Investigations in the vitamin A series. IV. Some

cases

of abnormal decarboxylation

AUTHOR(S): Smit, A.

CORPORATE SOURCE: N. V. Philips-Duphar, Weesp, Neth. SOURCE: Rec. Tray. Chim. (1961), 80, 891-904

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB cf. CA 51, 298c.-The decarboxylation of cyanoionylideneacetic acid and other cyanocarboxylic acids was studied. beta.-Ionone (48 g.), 30 g. cyanoacetic acid, and 5 g. NH4OAc was refluxed in 300 ml. C6H6and 200 ml. HOAc 4 hrs. with removal of H2O, the mixt. cooled dild. with Et2O, the acids extd. with 500 ml. N NaOH, the alk. ext. washed, acidified, and the aq. soln. extd. with Et2O to give after crystn. from C6H6 18 g. trans-cyano-.beta.-ionylideneacetic acid (I), m. 172-4, .lambda. 272,346

```
m.mu. (.epsilon. 8400, 17,000); NH4 salt m. 145-8.degree.. The C6H6
     mother liquors were dild. with 200 ml. petr. ether and treated with NH3
to
     give NH4 salt of the cis acid (II), m. 158-60.degree.. II was treated
     with 2N H2SO4 to give cis-cyano-.beta.-ionylideneacetaldehyde acid (III),
     m. 122-4.degree., .lambda. 274, 351 m.mu. (.epsilon. 7800, 18,700).
     Similarly prepd. were (starting material, product, m.p., .lambda.,
     .epsilon. given): .alpha.-ionone, cyano-.alpha.-ionylideneacetic acid
(IV)
     (one isomer only), 125-7.degree., 282 m.mu., 23,700; vitamin A (mixt. of
     trans and cis C18 ketone), 2-cyano-vitamin A acid (V), 188-93.degree.,
399
    m.mu., 40,600; benzalacetone, 2-carboxy-3-methyl-5-phenylpenta-2,4-
     dienonitrile (VI), 206-7.degree. (decompn.), 238 and 337 m.mu., 10,200
and
     33,300. Also prepd. was citrylidenecyanoacetic acid (VII), m.
     118-20.degree., .lambda. 302 m.mu. (.epsilon. 26,000).
     trans-.beta.-Ionylideneacetaldehyde was condensed with cyanoacetic acid
in
    EtOH and aq. NaOH to give cyano(.beta.-ionylideneethylidene)acetic acid
     (VIII), m. 220-1.degree., .lambda. 378 m.mu., (.epsilon. 29,500).
    Ionolacetic acid (36 g.) was treated with 36 ml. Ac20 to give
     .beta.-ionylidenemethane, b0.03 60-5.degree., .lambda. 227, 264 m.mu.,
     (.epsilon. 12,300, 11,300). MeMgI was added to benzalacetone and the
    product dehydrated with p-toluenesulfonic acid in boiling C6H6 to give
    2-methyl-4-phenyl-1,3-butadiene, m. 37.degree., .lambda. 280 m.mu.
     (.epsilon. 28,200). The .alpha.-carboxy nitriles were refluxed in C5H5N
    parts under N, the mixt. cooled, 2N H2SO4 added, the product extd. with
    Et20, and purified by filtration through silica gel (not on Al203) or by
    distn. in vacuo to give a .beta., .lambda.-unsatd. isomer of the normal
    .alpha., .beta.-unsatd. nitrile (starting material, product, b.p., %
    yield, .lambda., Ell given): I, C1521HN (IX), b0.05 92-5.degree., 85, 226
    and 263 m.mu., 518 and 475; III, IX, b0.04 87-91.degree., 92, 226 and 262
    m.mu., 564 and 494; IV, IX, -, 54, 234 m.mu., 951; \bar{V}, C20H27N, -,
    -(unstable), 319 m.mu., 720; VI, C12H11N, -, 86,282 m.mu., 1110; VII,
    C12H17N, -, 89, 235 m.mu., 876; VIII, C17H23N, -, 32, 220-3.50 m.mu.,
    The nitriles obtained by decarboxylation were isomerized to the
    .alpha.,.beta.-unsatd. compds. by treating 1 g. nitrile with 20 ml. 2N
    methanolic KOH overnight at room temp. then partial purification
    % yield, .lambda., E11 given): .beta.-ionylideneacetonitrile (X), 90, 253
    and 305 m.mu., 495 and 515; .alpha.-ionylideneacetonitrile, 95, 262
    870 [after purification m. 74-5.degree., .lambda. 262 m.mu. (.epsilon.
    26,000)]; citrylideneacetonitrile, 87, 273 m.mu., 825;
    (.beta.-ionylideneethylidene)acetonitrile, 65, 325 m.mu., 752; vitamin A
    acid nitrile, 78, 351 m.mu., 1380; 3-methyl-5-phenyl-2,4-
    pentadienonitrile, 85, 230 and 304 m.mu., 592 and 1440. Crude IX
    chromatographed on Al203 gave X. Crude X (115 g.) was distd. in vacuo
    then crystd. from petr. ether to give trans-.beta.-ionylideneacetonitrile
    (XI), m. 34.2-6.degree., .lambda. 253, 305 m.mu. (.epsilon. 13,900,
    16,600). The cis isomer could not be crystd. from X, so it was prepd.
    from cis-.beta.-ionylideneacetic (XII). Treatment of XII with PCl3
    followed by NH3 gave 38% cis-.beta.-ionylideneacetamide (XIII), m.
```

```
132-4.degree., .lambda. 250, 299 m.mu., (.epsilon. 11,000, 13,200). The
     trans amide was prepd. similarly (48% yield), m. 121-2.degree., .lambda.
     254, 299 m.mu. (.epsilon. 13,800, 15,600). XIII (10 g.) in 30 ml. C6H6
     and 8.7 g. Et3N was treated with 8.1 g. P2O5 at 0.degree. then heated 1
     hr. at 80.degree. to give 6.1 g. XIII and 1.1 g. cis-.beta.-
     ionylideneacetonitrile, m. 35.8-6.0.degree., mixed m.p. with XI below
     18.degree., .lambda. 250, 305 m.mu. (.epsilon. 10,500, 13,200).
     Degradation of IX by ozonolysis gave 30.2-32.8% geronic acid
     semicarbazone, compared with 25.8-30.8% on ozonolysis of XI and
     28.6%-30.9% on ozonolysis of .beta.-ionone. Several possibilities for
the
     structure of IX were eliminated on the basis of the ozonolysis and
     spectral data, leaving the .beta.-methylene structure. In the case of
the
     decarboxylation of VII and VIII, the structure of the new product was
     considered to be that with a .beta., .gamma.-double bond conjugated with
     .delta.-methylene group, on the basis of comparison of the spectra with
     those of known compounds of analogous structure. On KOH treatment, the
     double bonds rearranged to the expected .alpha..beta.:.gamma.,.delta.-
     conjugated compd. The authors concluded that the isomerization took
place
     after the decarboxylation, rather than before, as was the ease in other
     decarboxylation reactions.
IT
     54681-21-9, 2,4-Pentadienoic acid, 2-cyano-3-methyl-5-phenyl-
        (prepn. of)
RN
     54681-21-9 CAPLUS
     2,4-Pentadienoic acid, 2-cyano-3-methyl-5-phenyl- (7CI, 9CI) (CA INDEX
CN
     NAME)
   Me
     – CH=== CH-- Ph
NC-C-CO_2H
```

=> d his

L1

L2

L3

(FILE 'HOME' ENTERED AT 08:21:39 ON 09 DEC 2002)

FILE 'REGISTRY' ENTERED AT 08:21:50 ON 09 DEC 2002 STRUCTURE UPLOADED 3 S L1 77 S L1 FULL

FILE 'CAPLUS' ENTERED AT 08:25:03 ON 09 DEC 2002

L4 70 S L3

L5 174654 S L4 AND INHIBITING CELL PROLIFERATION OR CANCER

L6 33 S HEMATOPOIETIC CANCER

L7 0 S L4 AND L6

L8 33 S L6 AND L5

L9 73957 S LEUKEMIA

Page 117

=> d 11

L1 HAS NO ANSWERS

G1 G2 G3

- G1 H, CF3,OH, SH, CS2H, NH2, NO2, O, X, MeO
- G2 H, S, OH, SH, NO2, Cb
- G3 COOH, PO3H2, SO2, NH2

Structure attributes must be viewed using STN Express query preparation.

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 355.63	SESSION 526.08
DI GGOVINA		323.33
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-48.94	-48.94

STN INTERNATIONAL LOGOFF AT 08:36:43 ON 09 DEC 2002